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DEFECTIVE PRICING: MANAGEMENT TOOLS FOR CASE RESOLUTION

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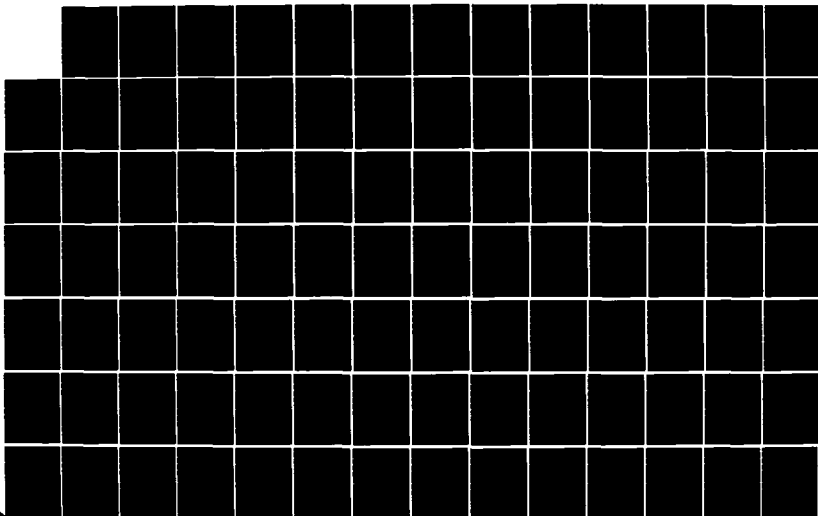
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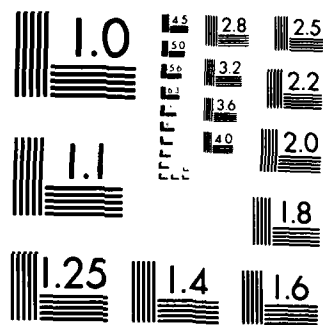
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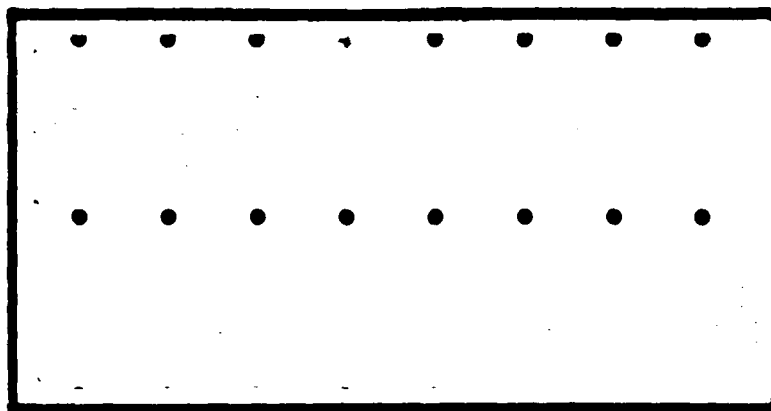
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DEFECTIVE PRICING: MANAGEMENT  
TOOLS FOR CASE RESOLUTION

THESIS

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AFIT/GSM/LSY/84S-4

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The contents of the document are technically accurate, and no sensitive items, detrimental ideas, or deleterious information are contained therein. Furthermore, the views expressed in the document are those of the authors and do not necessarily reflect the views of the School of Systems and Logistics, the Air University, the United States Air Force, or the Department of Defense.

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AFIT/GSM/LSY/84S-4

DEFECTIVE PRICING: MANAGEMENT  
TOOLS FOR CASE RESOLUTION

THESIS

Presented to the Faculty of the School of Systems and  
Logistics of the Air Force Institute of Technology  
Air University

In Partial Fulfillment of the  
Requirements for the Degree of  
Master of Science in Systems Management

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— September 1984 —

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### Acknowledgements

We wish to express our sincere appreciation to our thesis advisor, Lt Col Theodore J. Novak, for providing guidance and encouragement throughout this research effort. We also thank Major Donald A. Liepold for providing technical expertise and Mr. Richard A. Murphy for his support with the statistical analysis.

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### List of Symbols

ACO - Administrative Contracting Officer

AFAA - Air Force Audit Agency

AFLC - Air Force Logistics Command

AFPRO - Air Force Plant Representative Office

AFSC - Air Force Systems Command

ALC - Air Logistics Center

ASBCA - Armed Services Board of Contract Appeals

ASD - Aeronautical Systems Division

BUYAC - Buying Activity (synonymous with the term - PCO)

CAO - Cognizant Contract Administration Offices

DAR - Defense Acquisition Regulation

DCAA - Defense Contract Audit Agency

DCAS - Defense Contract Administration Service

DISAO - Designated Indep. Senior Acquisition Official

DOD - Department of Defense

DODD - Department of Defense Directive

FAR - Federal Acquisition Regulation

GAO - Government Accounting Office

IG - Inspector General

JAG/JANO - Staff Judge Advocate/ Office

OPR - Office of Primary Responsibility

PCO - Principal Contracting Officer

PMF - Pricing Office

PNM - Price Negotiation Memorandum

SPO - System Program Office

audit review can also be requested by the Air Force Audit Agency (AFAA). Since the AFAA has no authority to look at a contractor's records, they must request that the PCO (Principal Contracting Officer) order an audit from the DCAA (21;54).

If the PCO feels a post-award audit is warranted, he then requests DCAA assistance with the case. The DCAA is required by directive (DAR 3-807.10) to conduct a post-award audit when so requested. If the auditor documents a discrepancy, a defective pricing report may be initiated.

The report is sent to the PCO who attempts to resolve the defective pricing case from documented records of the contract negotiations. If the discrepancy still exists, notification is sent to the contractor stating the findings. The contract may then be renegotiated to resolve the defective pricing discrepancy. If the contractor agrees to the renegotiated contract, the case is resolved. If an agreement can not be reached, the PCO may refer the dispute to the Staff Judge Advocates Office (JANO). The PCO, with proof of legal sufficiency, is the final authority on the resolution of all defective pricing issues under his jurisdiction (16).

#### General Research Plan

The general research plan which this study will follow is only briefly addressed here, as it will be fully described in Chapter III. The research method to be used will

and DOD with regard to the resolution of defective pricing cases (32). Since AFSC and AFLC obligate a combined 83.5% of the available MAJCOM contract dollars (34), the focus of this study will be on the procedures and problems found in the AFSC and AFLC. The investigation within AFSC will be on the procedures used by the Aeronautical Systems Division (ASD), one of five buying divisions within AFSC, since they are responsible for approximately 57% of the contractual dollars awarded by AFSC (1;14). The investigation within AFLC will be on the procedures used by the five Air Logistics Centers (ALCs). All five ALCs will be investigated since they are responsible for all of the contractual dollars awarded by AFLC. Despite the limitations imposed, it is believed that the conclusions developed from this study will be of benefit throughout the Air Force and the Department of Defense.

#### Discovery to Resolution - An Overview

Defective pricing is identified through post-award audits of the negotiated contracts between the government and the prime contractor. It can also occur at the sub-contractor level. When this occurs, the government will negotiate only with the prime contractor since the prime contractor is responsible for the resolution of defective pricing occurring at the sub-contract level (52). These audits are conducted by the Defense Contract Audit Agency (DCAA) or the Government Accounting Office (GAO). An



auditor identifying a possible defective pricing case. It continues to the point where the dispute can no longer be negotiated to a satisfactory conclusion and must be resolved through litigation. A diagram of the three phases is depicted in Figure 1. The dashed line indicates the scope of this study.

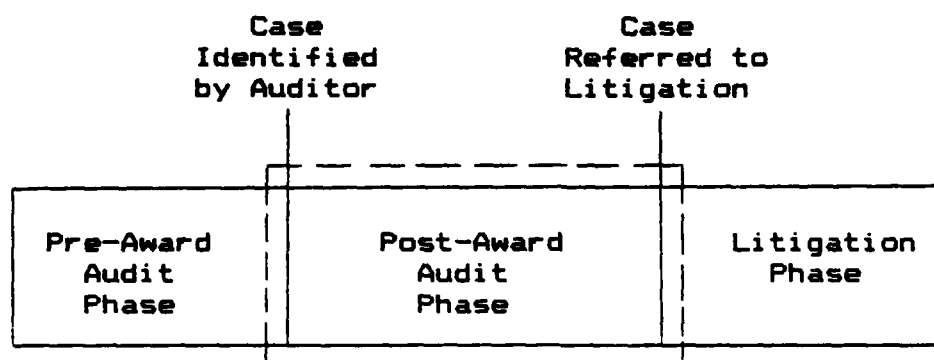


Figure 1. Defective Pricing Phases

To narrow the scope, the focus of this research will be limited to analyzing the current procedures for resolving defective pricing cases encountered in the post-award audit phase within ASD and the five ALCs as depicted by the area inside the dotted line of Figure 1. References made to the adjacent phases will be for continuity purposes only.

As previously noted, the problem of the untimely resolution of defective pricing cases has resulted in 30% of ASD cases and 68% of ALC cases being both unresolved and overdue. This problem is found throughout the Air Force

oped that would improve the government's position in resolving these cases?

The following diagram (Table I) depicts which research questions address each research objective.

|  |   | Research Questions |   |   |   |   |   |   |   |
|--|---|--------------------|---|---|---|---|---|---|---|
| R<br>e<br>s<br>e<br>a<br>r<br>c<br>h<br><br>O<br>b<br>j<br>e<br>c<br>t<br>i<br>v<br>e<br>s | # | 1                  | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|  | 1 | X                  | X | X |   |   |   |   |   |
|  | 2 |                    |   |   | X | X |   |   |   |
|  | 3 |                    |   |   |   |   | X |   |   |
|  | 4 |                    |   |   |   |   |   | X |   |
|  | 5 |                    |   |   |   |   |   |   | X |

Table I. Question/Objective Matrix

#### Scope and Limitations

The problems encountered in resolving these cases are not confined exclusively to the post-award audit phase of the resolution process. Some of these problems start before the audit ever determines that defective pricing has occurred. They can be traced all the way back to the contract bargaining table. Still other problems are encountered in the litigation phase, the final phase of the process.

Since the resolution process occurs primarily in the post-award audit phase, the scope of this study will be confined to those procedures used in this phase. The post-award audit phase is that period that begins with the

lished by DOD Directive 7640.2.

### Research Questions

These questions are formulated to direct the research towards achieving the above stated objectives.

1. Do standard procedures exist in the Aeronautical Systems Division and the Air Logistics Centers for resolving defective pricing cases?

2. What differences exist between the way the Aeronautical Systems Division processes defective pricing cases and the way the Air Logistics Centers process these cases?

3. If differences do exist, what accounts for the different procedures being used?

4. Once a defective pricing case has been identified, which government agencies or offices become involved in the case and how do they become involved?

5. What is the extent of the service that these agencies can provide the pricing office in resolving defective pricing cases?

6. What bottlenecks exist with the current procedures, and what are some possible solutions to these bottlenecks?

7. What deficiencies and ineffective procedures can be identified in the current procedures being used in the resolution of defective pricing cases within the ALCs and ASD?

8. What management tools or guidelines can be devel-

that as of 30 September 1983, a total of 206 defective pricing cases were reported as overdue (exceeding the 6 month constraint) throughout the DOD (32:Encl.2).

These facts alone justify an analysis of existing procedures being used throughout the Air Force and the Department of Defense for handling defective pricing cases. The heightened visibility on Capitol Hill adds to this need.

### Objectives

The objectives of this research are:

1. To analyze the current procedures being used in the Aeronautical Systems Division and the Air Logistics Centers to resolve defective pricing cases.

2. To identify the key offices or agencies that must become involved, and the extent or scope of their role in this process.

3. To identify bottlenecks that are caused by the procedures being used in the resolution of these cases.

4. To identify deficiencies and ineffective procedures that hinder the government's ability to resolve defective pricing cases.

5. To develop a set of guidelines or management tools designed to improve the government's position in resolving defective pricing cases. In particular, to develop management tools that will assist the offices of primary responsibility (OPR) in complying with the regulation as estab-

Only recently, since 1980, with the 16.5% average annual increase in the military budget (46:72) and the corresponding demands for fiscal responsibility has increased emphasis been placed on stopping this waste of federal dollars (42:48). This is exemplified by the following statement made prior to a FY83 budget hearing by Texas Senator John Tower, Chairman of the Senate Armed Services Committee. "There must be greater emphasis placed on the accountability of this [Reagan] administration, as well as the Congress, for the efficient execution of defense resources [42:48]."

A summary of unresolved cases which have been identified as involving defective pricing revealed some unexpected numbers. As of 30 September 1983, overdue defective pricing cases accounted for approximately \$248.2 million in questioned costs throughout the Department of Defense (32:Encl.3). As of 31 January 1984, of 33 cases within the Aeronautical Systems Division (ASD) of the Air Force Systems Command (AFSC), 10 were still unresolved six months after their discovery. Some cases have taken as long as two years or more to be resolved (43:10). As of 30 September 1983, within the five Air Logistics Centers (ALCs) of the Air Force Logistics Command there were a total of 37 overdue cases (over 6 months old). Of these cases, 25 were still unresolved. In some cases, the resolution process has taken as long as three years (13). It must be noted

that the resolution of these cases is not being accomplished within this constraint (25:1).

Several factors are contributing to the delayed resolution of these cases. Historically, the resolution of defective pricing cases has taken a backseat to present contract negotiations, resulting in a buildup of defective pricing cases (45). At the same time, the general lack of a concerted effort to follow-up on existing cases has contributed to the problem (45). The lack of any established, standardized, written procedures or guidelines directing milestones or recommended phase completion times, within ASD prior to October 1983, has contributed to the excessive amount of time being required to resolve the individual cases (7). A similar situation existed in the Air Force Logistics Command. Prior to August 1981, there were written procedures; however, they did not meet the six-month time constraint. The inability of the current procedures to resolve these cases within the six-month time constraint indicates that there may be deficiencies or ineffective procedures being used to resolve the defective pricing cases.

#### Justification of the Study

The problem of resolving defective pricing during contract negotiations between the federal government and prime contractors was first addressed in 1962 with the passage of Public Law 87-653, the Truth in Negotiations Act (40:3).

which have been identified by the Government Accounting Office (GAO) and the Department of Defense (DOD) in resolving defective pricing cases (45). These problems are receiving increased Congressional interest, as evidenced by the April 1983 Senate hearings on Governmental Affairs, chaired by the Honorable William V. Roth Jr. (50)

### Goals

There are three major goals to be accomplished by this study. First, the current procedures being used in resolving defective pricing cases will be analyzed. Second, any bottlenecks, deficiencies, or ineffective procedures that are found will be documented. Finally, management tools will be developed to assist each Command (AFSC/AFLC) in dealing with problems encountered in the resolution process. It is anticipated that the accomplishment of these goals will improve the government's position by minimizing the problems in the defective pricing arena.

### Problem Statement

The effectiveness of the Department of Defense in resolving defective pricing cases has come under intense scrutiny since 1980. Contract audit reports alleging defective pricing are required by law to be resolved within six-months of the audit report being issued, as specified in DOD Directive 7640.2 (30:2). Internal and external reviews by both military and government agencies have determined

Government contracts was proposed by the Honorable Carl Vinson, then Chairman of the House Armed Services Committee (40:2). The purpose was "to bring negotiated procurement under more rigid legislative control [40:2]."

In endorsing the bill, Representative William H. Bates stated, "No honest bargainer can object to it, it seems to me. It simply calls for truth in bargaining and paying. I think it is not too much to expect and require [40:2]."

Congress responded to the problem by passing Public Law 87-653, the 1962 Truth in Negotiations Act, which has in some instances been characterized as a legislated substitute for competition (40:15). This Act attempts to put the government and the contractor on an equal negotiating basis. It requires the contractor to provide accurate, current, and complete information to the government negotiator during negotiations. Defective pricing occurs when the contractor fails to provide accurate, current, and complete information at the time of negotiations (31:15.34; 28:807.3A).

After initial successes, the effectiveness of the Truth in Negotiations Act has been diminished in recent years. Rulings by the Armed Services Board of Contract Appeals (ASBCA) and inadequate managerial procedures in the Department of Defense have resulted in a decreased effectiveness of the law.

This decreased effectiveness has created problems



## DEFECTIVE PRICING: MANAGEMENT TOOLS FOR CASE RESOLUTION

### I. Defective Pricing - A Troubled Arena

#### Introduction

Former United States Senator, the Honorable Stuart Symington, stated in hearings before the Senate Armed Services Committee in 1962 that, "we are trying to get as much truth as possible in negotiations [40:3]." Sentiment such as this was prevalent in the United States Congress in the early 1960's.

The Congress was determined to address the fairness in negotiation issue and take the required steps to correct the perceived inequities that existed. The problem that brought this issue such prominence was that the government was seen to be at a distinct disadvantage when involved in contract negotiations with civilian contractors. "The contractor all too often knew, or had knowledge of, cost data and estimates not available to the government [40:12]."

Everyone agreed that a contractor deserved a fair profit. However, negotiated contracts could result in excessive prices to the American taxpayer for defense items and windfall profits for contractors who did not disclose complete, accurate, and current cost or pricing information (40:15).

In this setting, a truth-telling requirement for

sequence and time frames being followed have several inherent weaknesses and problems. A logical and effective set of milestone guidelines, to be used as management tools, were developed along with other recommendations designed to strengthen the government's position in resolving defective pricing cases.

Abstract

The 1962 Truth in Negotiations Act was a legislative attempt to put the government and the contractor on an equal negotiating basis. It requires the contractor to provide accurate, current, and complete information to the government negotiator during negotiations. Defective pricing occurs when the contractor violates this tenant. The time frame and milestone sequence currently being followed in resolving these cases has drawn considerable top level interest. The six month time criteria, established by DODD 7640.2, is being exceeded in a majority of the cases. This study was designed to accomplish three goals: to analyze the current procedures being used in the Systems and Logistics Commands during the post-award audit phase of the resolution process; to identify deficiencies, bottlenecks, and ineffective procedures which are present; and to develop management tools that will assist the government in resolving these cases in a timely and effective manner. A survey of regulations, directives, and policy letters was conducted in conjunction with interviews with field experts and key personnel in the defective pricing arena within AFSC and AFLC. A comprehensive case study analysis revealed that the current procedural

List of Definitions  
(Reference DODD 7640.2)

Closed Audit Report. An audit report that has been dispositioned.

Contract Audit Report. The contract auditor's written advice to a contracting officer advocating specific action on the part of the contracting officer or contractor. An audit report could include amounts questioned or expressed in terms of cost avoidance, or notification of a contractor's non-compliance with cost accounting standards. Any cost set aside as "unsupported" or "unresolved" will not be considered as a recommendation.

Cost Questioned Sustained. That portion of costs questioned by the auditor that is upheld as a result of actions taken by either the contractor or the contracting office.

Disposition of Contract Audit Reports. Contract audit report disposition is achieved when :

- (1) The contractor implements the audit recommendations
- (2) The contracting officer negotiates a settlement with the contractor
- (3) The contracting officer makes a unilateral decision
- (4) A decision has been rendered on an appeal made to the Armed Services Board of Contract Appeals
- (5) All corrective actions deemed necessary by the contracting officer have been taken and no further actions can be reasonably anticipated

Litigation. An audit report is in litigation any time an appeal has been filed with the ASBCA or any court concerning an audit recommendation.

Open Audit Report. An audit report that has not been dispositioned.

Overdue (Overaged) . An audit report that has not been dispositioned and is over 6 months old (from date of issuance) on the "as of" date of the status report.

Resolution. The point at which the audit organization and the contracting officer agree on the action to be taken on audit report recommendations; or, in the event of disagreement, when the matters are elevated for review by the DISAO and its recommendations have been considered by the contracting officer and he or she has selected a course of action.

be directed toward accomplishing the major goals and objectives of this study.

Goal one involves analyzing the current procedures being used in resolving defective pricing cases. This will be accomplished through a review of all regulations, directives, policy letters, and other written material concerning defective pricing resolution procedures within the post-award audit phase. Additionally, interviews will be conducted with key personnel involved in the resolution process.

Goal two involves the documentation of any bottlenecks, deficiencies, or ineffective procedures that are discovered during the analysis. A comparison between the current written procedures within each Command will identify patterns and highlight problem areas and other hindrances to the resolution of these cases.

Finally, management tools will be devised to assist each Command in dealing with bottlenecks, discrepancies, and ineffective procedures encountered in the resolution process. This will satisfy goal 3. These will be refined through a recurring interview process and coordinated with the personnel responsible for their implementation.

Thus far, this study has provided the justification for why this research is needed, identified the problem, established a set of goals and objectives, and provided a general research plan to accomplish them. Chapter II

will provide some insight into how the defective pricing problem originated. It will also investigate why the defective pricing issue was and is now important. Additionally, Chapter II will address what procedures have been and are currently being used, along with the agencies involved in resolving defective pricing cases.

## II. A Review - Past and Present

### Introduction

This chapter provides the foundation required to understand the defective pricing problem in the Air Force and the DOD. The information is condensed from personal interviews and a review of DOD, Command, and Divisional directives, regulations, and policy letters.

The first section of this chapter presents a detailed definition of Defective Pricing. Not only does this section explain what constitutes defective pricing, but also that which is not defective pricing. This section also deals with both the current efforts to eliminate defective pricing and a chronology of the major actions that have been taken in the past by the Congress and DOD in recognition of the problem. The second section defines the three specific phases in the resolution process. The various agencies and offices that are involved in defective pricing are dealt with in the third section. Finally, the last section provides a review of the procedures currently being used by ASD and the five ALCs in resolving defective pricing cases.

### Defective Pricing Background

Definition. In Chapter I, the meaning of the term Defective Pricing was only briefly explained. A more

thorough understanding of defective pricing entails understanding not only what defective pricing is, but also what it is not. This distinction is very important because some cases which initially appear to be defective pricing cases do not qualify as such under the definitions set forth in the Defense or Federal Acquisition Regulations.

The Defense Acquisition Regulation, DAR 3-807.10, effective until 31 March 1984, defined Defective Cost or Pricing Data as follows:

When any price to the Government must be negotiated largely on the basis of cost or pricing data submitted by the contractor, the data must be accurate, complete and current and in appropriate cases so certified by the contractor or subcontractor. If such certified cost or pricing data are subsequently found to have been inaccurate, incomplete or non-current as of the effective date of the certificate, the Government is entitled to an adjustment of the negotiated price, including profit or fee, to exclude any significant sum by which the price was increased because of the defective data [26:136].

Effective on April 1, 1984, the Federal Acquisition Regulation superceded the Defense Acquisition Regulation. FAR 15.804 defines defective pricing as follows:

If, after award, cost or pricing data are found to be inaccurate, incomplete, or noncurrent as of the date of final agreement on price given on the contractor's or subcontractor's Certificate of Current Cost or Pricing Data, the Government is entitled to a price adjustment, including profit or fee, of any significant amount by which the price was increased because of the defective data. This entitlement is ensured by including in the contract one of the clauses prescribed in 15.804-8 and set forth at 52.215-22, Price Reduction for Defective Cost or Pricing Data, and 52.215-23, Price Reduction for Defective Cost or Pricing Data - Modifications. The clauses give the Government the right to a price adjustment for defects in cost or pricing data sub-



mitted by the contractor, a prospective subcontractor, or an actual subcontractor [31:15.34].

The fact that the contractor supplies the required data does not exonerate him from identifying that information which is pertinent to arriving at an equitable negotiated price. All relevant information must be clearly brought to the attention of the government negotiators or a defective pricing case may result (52).

Defective Pricing is neither fraudulent nor criminal in nature. According to IG Special Interest Item No. 051 which addresses selected sections of AFR 124-8, Fraud and Violations of Public Trust in Contract, Acquisition and Other Matters, fraud in acquisition may occur in two basic forms. The first form, which affects outside contractors who are performing contracts in support of Air Force needs, includes but is not limited to, false billings, willful diversion or misuse of Government property, and collusive bidding (8). The second form of fraud involves violations of public trust by Air Force personnel who attempt to use their positions for personal gain at the expense of the Air Force (8). Examples of this type of fraud include collusion, favoritism, bribery, soliciting, and conflicts of interest. Neither of these forms applies to defective pricing.

The following three examples are designed to further clarify what defective pricing is.

Example 1: Defective pricing has occurred.

A contractor negotiates a contract to repair damaged parts for an aircraft flight control system. The contract is for the period 1 January to 30 June and is based on a cost plus incentive fee basis. At the time of negotiations, the contractor proposal is based on a labor rate of \$20 per hour. However, the contractor has re-negotiated his labor contract downward, and the new labor rate will be \$15 per hour starting on 1 February. This additional information is not supplied to the government negotiator at the time of contract negotiations. The negotiated contract is based on a labor rate of \$20 per hour, and this results in an over-charge to the government.

Defective pricing has occurred. Although the contractor supplied accurate information to the government negotiator, he failed to supply current and complete information (the new labor rate). The contractor knew that the applied labor rate would be five dollars less per hour starting on 1 February. He did not, however, account for this difference, nor did he bring this variance to the attention of the government negotiator. This had an inflating effect on the contract value and an over-charge resulted.

Example 2: Defective pricing has not occurred.

A contractor negotiates a contract to produce hydraulic pumps for a missile propulsion system. The con-

tract is for the period 1 July to 31 December. All the parts are to be produced by 15 October and distributed by 31 December to AFLC. The current cost of materials to produce each hydraulic pump is \$2500 and this is the amount presented to the government negotiator. The contractor knows that the cost of materials will decrease to \$2000 on 1 November and does not give the government negotiator this additional information. A cost plus incentive fee contract is negotiated based on the material cost of \$2500 per hydraulic pump.

Defective pricing has not occurred. Since the materials to produce each hydraulic pump must be purchased by 15 October (i.e. prior to 1 November), the contractor could not take advantage of the lower cost available on 1 November. No overcharge occurred and P.L. 87-653 was not violated.

Example 3: Defective pricing has not occurred.

A subcontractor negotiates with a prime contractor to supply maintenance personnel to service transient aircraft at the local Air Force base for the period 1 January to 31 December. The contractor reports a current labor rate of \$15 per hour and also reports that starting on 1 March the labor rate will decrease to \$12 per hour. The government negotiator is aware of the new scheduled labor rate but bases the contract on the current labor rate of \$15 per hour. The contract is a cost plus incentive fee contract.

The result is an overcharge to the government.

Defective pricing has not occurred. The overcharge is due to an error on the part of the government negotiator. The contractor has complied with all parts of P.L. 87-653 by providing current, accurate, and complete information.

These examples clarify the two conditions that must exist before defective pricing can occur. First, the contractor must fail to provide current, accurate, and complete information to the government negotiator during contract negotiations. Second, this inaccurate, non-current, or incomplete information must result in an overcharge to the government.

War on Waste. The importance assigned to minimizing defective pricing has taken on renewed emphasis in recent years. Since the 1980 elections, the Reagan Administration has waged an active campaign against Fraud, Waste and Abuse in the government. In his Budget Message to the Congress on 31 January 1983, President Reagan said:

My administration is committed to improving management and reducing waste, fraud, and abuse. The President's Council on Integrity and Efficiency (PCIE), made up of 18 Inspectors General, reported that almost \$17 billion has been saved or put to better use in the past 2 years [46:12]. Improvements in the management of Federal operations, such as better procedures for the collection of debts owed the Government and better cash-management practices are being carried out [46:5]. My administration has redirected programs to improve their efficiency and to achieve cost savings Government-wide. We intend to upgrade and modernize our administrative systems to make them more effective and efficient in carrying out the Government's business and serving the

public [46:12].

This program calls for the active participation of all government personnel and a more stringent accounting of how and where federal funds are spent. The Air Force's top leaders have also joined this effort.

In a joint memorandum, Secretary of the Air Force Verne Orr and Air Force Chief of Staff Gen. Charles A. Gabriel stated: "We are actively engaged in a campaign against fraud, waste and abuse (FW&A) and the perception that such conditions exist in the military [47:35]." They went on to say that "managers, particularly those dealing with procurement related activities, must be sensitive to indicators of fraud, waste or corruption [47:35]." Only by making a thorough review, or assessment, of existing systems and programs and by installing effective internal controls will we have effective, efficient utilization of defense resources (35). In all cases the responsible commanders must ensure that appropriate actions are taken to protect government interests and that adequate managerial controls are established to track resolution of the issues to completion (35).

Defective pricing is not a crime or a prosecutable practice and therefore does not come under the heading of fraud. However, defective pricing is a needless expenditure of Government funds, resulting from deficient practices, systems, controls or decisions. Therefore, defective

pricing does come under the heading of waste as defined in ASD's Policy for Follow-up on DCAA Contract Audit Recommendations (4:7). With this in mind, any proposed changes to the current procedures which will improve the government's effectiveness in recovering defective pricing funds and reducing the waste would be in line with executive policy.

#### Chronology of Major Congressional and DOD Actions.

Prior to 1962, no legal basis for defective pricing existed. Congress responded by passing P.L. 87-653, the "Truth in Negotiations Act", which laid the basis for defective pricing. The law became effective on 1 December 1962 (40:3).

In January 1970, according to Defense Acquisition Circular #76-41, the effect of the law was specifically expanded to include sub-contractors along with the prime contractor (27:71). Through the early 1970's, the Court of Claims and ASBCA applied a strict interpretation of the law in most cases. A ruling by the Court of Claims in 1973 established the basic concept of reducing the contract award by the amount of defective pricing on a dollar for dollar basis. This ruling was essential for the effective enforcement of the law, and as a result was adopted as section 3-807.10(A)(2) of the Armed Services Procurement Regulation (28:807.10(A)(2); 41:2; 26:137).

In 1980 the Congress enacted Public Law 96-304, the

Supplemental Appropriations and Recission Act. This law affected defective pricing cases by requiring agencies to settle the disposition of all audits involving questioned costs within six-months (25:2).

On 31 August 1981, DOD Directive 5000.42 was established. It provided the first major attempt at establishing a policy for follow-up on contract audit recommendations. This established the requirements for resolving defective pricing cases throughout the Department of Defense (29:1).

Prior to December 1981, the law required that current, accurate, and complete information be submitted on all contracts in excess of \$100,000 (28:2). On 1 December 1981, Public Law 97-86 increased this amount to \$500,000 (2). According to a 27 October 1983 Government Accounting Office (GAO) report on DOD Contract Audit Resolution, "the increased thresholds were intended to capture a high percentage of questioned costs [25:6]."

For example, the inspector general's office estimated that the threshold of \$500,000 in questioned costs for elevating disputed preaward audits would have captured 90 percent of the \$17 billion questioned one year, but would only require covering 10 percent (2700) of the audits [25:6].

The Office of Management and Budget (OMB) issued Circular A-50 in September 1982. This circular established audit resolution procedures intended to insure prompt and proper decisions on audit recommendations (25:2). On 29 December 1982 DOD Directive 7640.2 superceded DOD Directive 5000.42 as the primary directive for establishing policy on

contract follow-up reports. This directive implemented OMB Circular A-50 within the Department of Defense (30:1).

As a result of a continued emphasis to minimize the waste of federal dollars, the Senate Committee on Governmental Affairs convened hearings on 14 April 1983 to investigate "the nature and extent of defense contractor defective pricing (P.L. 87-653, Truth in Negotiations Act) violations, and the resolution of defective pricing incidents reported by the Department's contract auditors [50]". The ability of the Services to resolve these cases in a timely manner remains a continuing concern of the Department of Defense (44).

In summary, the legal basis for defective pricing came into existence with the passage of P.L. 87-653, the 1962 Truth in Negotiations Act. This act was amended by P.L. 97-86, which increased the threshold dollar amounts to \$500,000. Department of Defense Directive 5000.42 was the first major attempt by the DOD to establish a policy for follow-up on contract audit recommendations. OMB Circular A-50 established procedures intended to insure prompt decisions on audit recommendations. DOD Directive 7640.2 superceded DOD Directive 5000.42 and implemented OMB Circular A-50 within the DOD. This is the current basis for all follow-ups of audit recommendations with the DOD. Figure 2 depicts the chronological sequence of major Congressional and DOD actions.



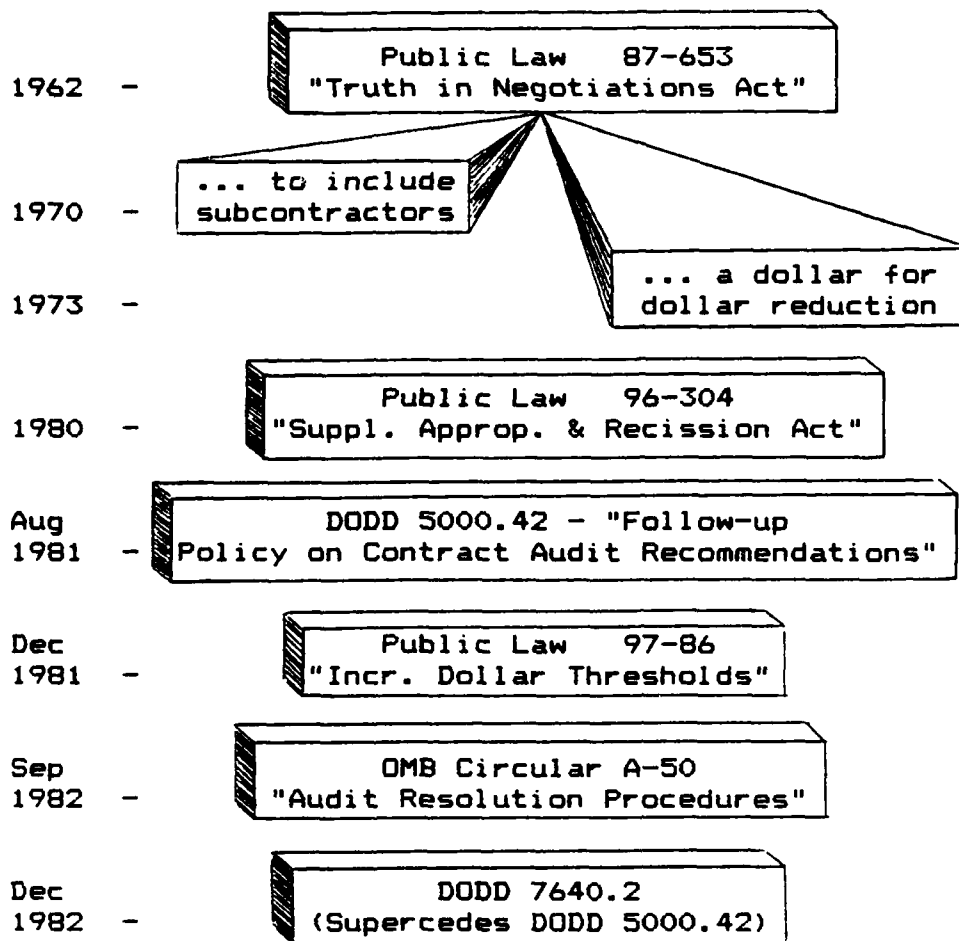


Figure 2. Chronology of Major Actions

#### Resolution Phase Identification and Definition

For the purpose of this study it is important that the three defective pricing resolution phases which are referred to throughout this study be specifically identified and defined according to the context in which they are used. The three phases are the Pre-Award Audit Phase, the Post-Award Audit Phase, and the Litigation Phase. Figure 1, on page 9, depicts these three phases.

The Pre-Award Audit Phase includes the entire price

negotiation process between the government negotiators (PCO, ACO, legal representatives, etc) and the contractor's negotiating team. It also includes any contractual pre-award audits which are conducted by either the DCAA or DOD IG. This phase continues to the point where an auditor initiates a post-award audit. At this point, the case enters the second phase - the Post-Award Audit Phase.

The Post-Award Audit Phase begins when an auditor identifies a cost as questionable and possibly involving defective pricing. This occurs as the result of the auditor conducting a post-award audit of the completed contractual agreement. This phase includes the review of the auditor's findings and any price reduction or renegotiation which results. If all questionable costs are resolved to the satisfaction of both the government and the contractor, the case is resolved and the process is concluded. If the government negotiators and the contractor can not resolve the difference through the negotiation process, the case enters the third phase - the Litigation Phase.

The Litigation Phase begins when the government has issued a final determination and the contractor does not agree with this determination and therefore files an action with the Court of Claims or ASBCA. An impasse has occurred and the case is referred to the administrative process for litigation. Once the case enters this phase, the responsi-

applicable). A complete list of interview questions is contained in Appendix A.

Interview questions A and B were designed to insure that the respondent had an adequate knowledge of the subject. These questions allowed the researchers to expand the interview, if necessary, to any area of defective pricing to insure that the subject was being investigated in sufficient depth and detail.

Interview questions C, D, and E were designed to establish the procedures currently being used to resolve defective pricing cases. Any differences in procedures that existed between each level of management were explored and analyzed without informing the respondent that a difference existed.

Interview question F was used to determine which agencies were involved in defective pricing resolution and the extent of their involvement.

Interview question G was designed to determine if bottlenecks existed in the current resolution process, where they occurred, and possible solutions of the bottlenecks.

Interview questions H and I were used to allow the respondents to identify any deficiencies or ineffective procedures they felt were in the current process.

Finally, interview question J allowed the respondents to recommend any suggestions for improving or expediting the resolution process.

defective pricing were reviewed. Stage 3 consisted of an indepth analysis of completed defective pricing cases.

Due to both the nature and the complexity of the problem being investigated, it was necessary to use an exploratory interview process. This allowed the researchers to expand their questions to specific problems that the experts felt were urgent and needed added emphasis. Also, in light of the extended period of time required to complete the post-award audit phase (the phase this study is concerned with), an ex post facto (after the fact) study was required using completed cases.

Finally, the study was conducted in a cross-sectional field setting. The ability of the current resolution procedures to accomplish each milestone was determined. Interviews were conducted with experts in a field setting using actual cases for data computations.

### The Interview Process

The interview process was designed to minimize any bias introduced by the interviewer, the questions asked, or the respondent. The purpose of the interview was to obtain data used in resolving the research objectives.

Interview Design. The interview questions were structured into ten groups (A-J) and were designed to answer the research questions. Each group of questions consisted of a leadoff question and a series of followup questions (where

### III. The Research Design

#### Introduction

The research design introduces and explains in detail the methodology that was followed in answering the eight research questions contained in Chapter 1. Data used in answering the research questions was obtained by two methods. First, structured interviews encompassing personnel from all managerial tiers were conducted with experts in the field. Second, the formalized procedures currently being used for resolving defective pricing cases were obtained from a review of all pertinent regulations, directives, and policy letters affecting AFSC and AFLC with specific emphasis being placed on ASD and the five Air Logistics Centers (ALCs). The ALCs are located at Kelly AFB, Warner-Robins AFB, McClellan AFB, Hill AFB, and Tinker AFB.

#### Type of Study

This study was composed of three separate stages. Stage 1 consisted of interviews with experts in defective pricing. An exploratory approach was used to establish how defective pricing is being resolved and what problems are being encountered. Stage 2 was a literature review of all directives, regulations, and policy letters affecting defective pricing within AFSC and AFLC. Additionally, GAO reports and transcripts of Congressional testimony on

literature governing defective pricing in conjunction with structured interviews conducted with experts in the field. Defense Technical Information Center (DTIC) and Defense Logistics Information Exchange (DLSIE) searches were initiated. These searches established that no previous research had been accomplished in this area. The following chapter (Chapter III) will detail the methodology to be used in evaluating those factors designated as contributing to the delayed resolution of defective pricing cases and in developing management tools designed to assist in meeting the time constraints imposed by DOD Directive 7640.2.

tractor of the audit allegations (12:7). Within the next 150 days (by day 160), the Pricing Office/PCO will receive and evaluate the contractor's response to the allegation (12:7). Additionally, all negotiations will be completed and a settlement or impasse will be reached (12:7).

Within the remaining 20 days, the DPR in conjunction with the Staff Judge Advocates Office will distribute the supplemental agreement, issue a determination of the findings, or prepare a letter withdrawing claim review (12:7). Upon disposition of the defective pricing case, the PCO will advise the DCAA within 10 working days of the action being reported (12:7). Figure 7 depicts the entire AFLC timeline.

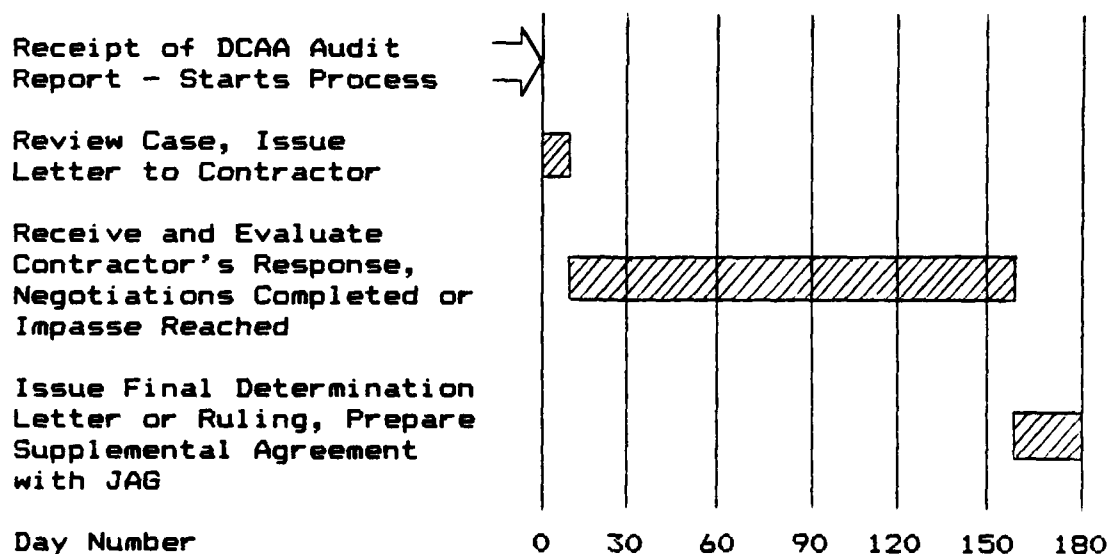


Figure 7. AFLC Timeline (Day 0 - 180)

### Conclusion

Chapter II has been concerned with a review of all

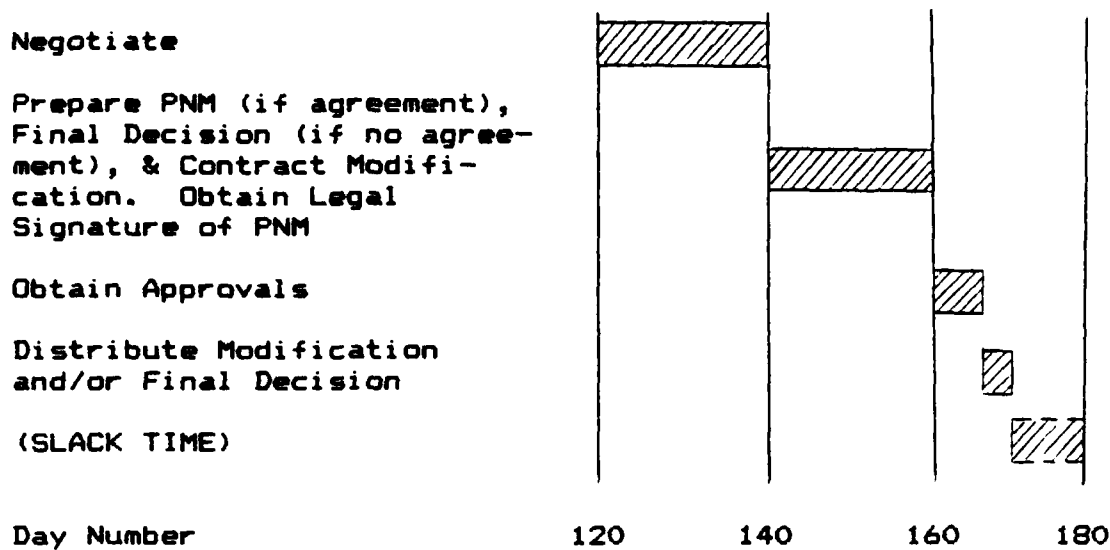


Figure 6. ASD Timeline (Day 121 - 180)

DOD Directive 7640.2 specifies a 180 day disposition timeframe. The current ASD procedures allow the case to be resolved in 170 days. Ten days of slack time are provided at the end to allow for unexpected delays encountered during the resolution process.

AFLC. As stated in Chapter I, all five ALCs were used to evaluate AFLC procedures. Formalized ALC procedures begin with the receipt of the DCAA Audit Report (12:). No formal procedures could be located designating, in writing, the specific Office of Primary Responsibility (OPR) for achieving each individual milestone. However, interviews revealed that the Pricing Office maintains OPR status for the entire resolution process (18;19;20;24).

Within 10 days of receiving the DCAA Audit Report, the OPR will review the case and issue a letter to the con-



The next twenty days (till day 140) are allotted to complete the negotiations (3). All interested parties (the legal advisor and auditor) will be invited, in writing, by the price analyst to participate in the negotiations (3:2). All evidence and information presented during the negotiations must be thoroughly documented.

All settlements must be documented by day 160 in a Price Negotiation Memorandum (PNM) prepared by the price analyst and signed by the legal advisor (3). The ASD/PM has established a settlement criteria that states that settlements can not be less than 90% of the approved objective without his approval (3:2). If no agreement can be reached, a final decision is to be issued by the PCO. Finally, all required approvals (including legal) will be acquired , and the modification and/or final decision will be distributed in the next 10 days (by day 170) (3). Figure 6 depicts the final 60 days (Day 121 - 180) of the ASD timeline.

briefing, with all participants, to the ASD/PM with the Deputy or his designee in attendance [3:2]." A case file and memoranda, signed by the PCO and supported by the necessary documentation, will be provided by the Designated Independant Senior Acquisition Official (DISAO) for ASD/PM approval at the prenegotiation briefing (3:2). Figure 5 depicts the procedures required to be conducted between days 18 and 120.

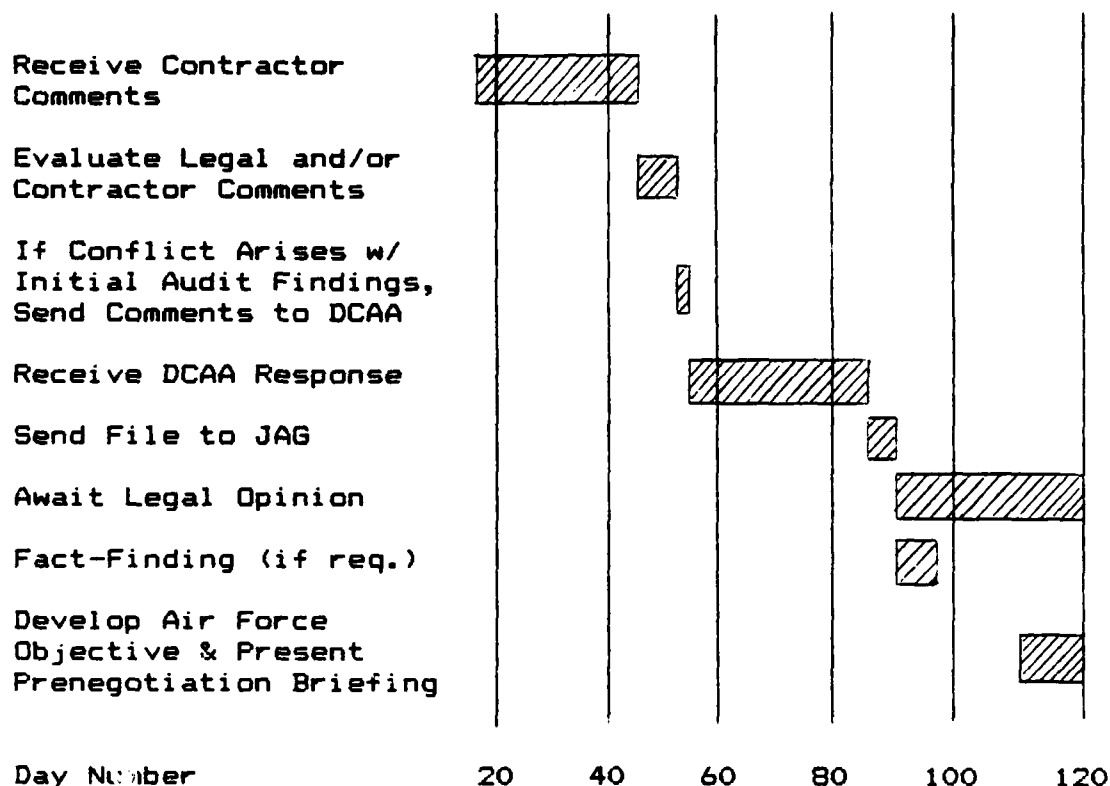


Figure 5. ASD Timeline (Day 18 - 120)

The DCAA is allotted thirty calendar days (till day 86) to respond (3). By day 90, the complete file, including the contractor's and DCAA's responses, must be sent to the Staff Judge Advocates Office. The JAG then has 30 days (till day 120) to provide a written legal opinion concerning the Government's position on the case (3).

While awaiting the legal opinion, additional fact-finding can be conducted, if required. Once the legal opinion is received, the Air Force Objective can be developed and the pre-negotiation briefing(s) presented (3).

Approximately seven days are allotted for further fact-finding.

Further inquiry (fact-finding) will be conducted when necessary to obtain additional understanding of the audit and/or company positions on the audit findings in issue. The PCO will invite the legal advisor to attend fact-finding. Fact-finding will conclude with a Memo for Record, prepared on-site by the price-analyst, and signed by all Government participants -- even if it includes differing opinions on the issues. A copy of the memo will be furnished to all Government participants and to the liaison auditor (DCAA/WPL) at ASD [3:1].

While further fact-finding is not always required, it should be conducted early in the 30 day waiting period so as to not delay the resolution process should the JAG provide the written opinion ahead of schedule.

By day 120, the buying activity and price analyst should have developed both the Air Force Objective for the negotiation process and presented "the prenegotiation

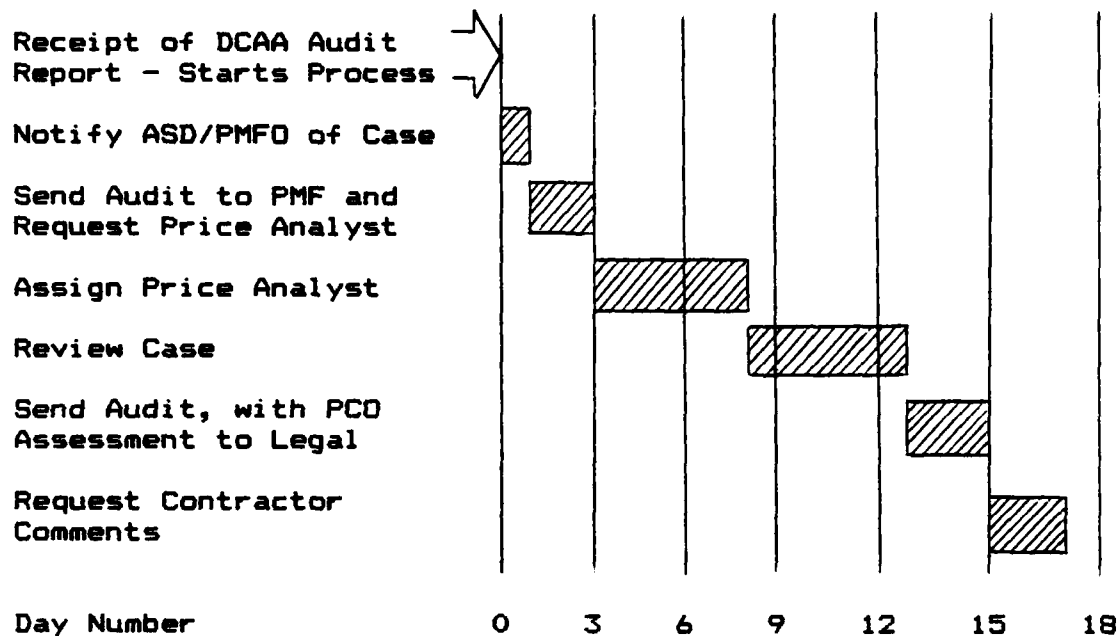


Figure 4. ASD Timeline (Day 0 - 17)

The contractor is allowed 30 days (i.e. till day 47) to respond to the buying activity with regard to the allegation (3). "The contractor will be requested to provide a copy of his response to the auditor simultaneously with [his] response to the PCO [3:1]". The next 7 days are allotted to the buying activity and price analyst to both evaluate the merits of the contractor's response and to review any legal comments that are set forth (3). "Where legal advice, contractor response, or PCO/price analyst assessment disagree with the initial audit findings, the PCO will provide the [DCAA] auditor an opportunity to comment in writing, on the disagreement [3]." Copies of the dissention are to be sent to the DCAA by day number 56.

procedures into sixteen procedures (3). Formalized ASD procedures begin with the receipt of the DCAA Audit Report by the buying activity.

The Directorate of Pricing, ASD/PMF, Deputy for Contracting and Manufacturing is the ASD DPR for all alleged defective pricing actions initiated pursuant to DAR 3-807.5(C). The buying activity will immediately notify ASD/PMF in writing of all defective pricing actions [11:27].

Within 3 days of receiving the DCAA Audit Report, the buying activity must inform the ASD/PMF that the case has arrived, send them a copy of the audit, and request that a price analyst be assigned to the case (3:1). The Pricing Office, ASD/PMF, then has until day 8 to select and assign a price analyst (3:1).

The buying activity, in conjunction with the price analyst, has 5 days (until day 13) to complete their review of the case (3:1). By day 15, "the PCO [buying activity] and price analyst will send the audit, along with their assessment [to the JAN0] for legal review [3:1]". At this point in the process, (by day 17) the contractor is requested to comment on the audit findings. Figure 4 depicts the first 17 days of the timeline.

a finding of defective pricing (45). This is a formal report that starts the defective pricing procedure. All disposition and resolution target times flow from the date of this report (6:3).

#### Current AFSC and AFLC Resolution Procedures

The specific procedures being used in AFSC and AFLC in resolving defective pricing cases have a common basis in DOD Directive 7640.2 (30). The milestones for each Command are designed to comply with the six-month time constraint required by this directive. Both AFSC and AFLC headquarters have limited involvement in the resolution process. They are concerned primarily with tracking and reporting unresolved cases within their respective Commands (22:37).

AFSC. ASD is responsible for a majority of the contractual dollars awarded by AFSC (57%) (1:14). Additionally, a majority of the overdue defective pricing cases (59%) within AFSC are found in ASD (39). The procedures being used in ASD are coming under intense internal scrutiny and therefore are being constantly evaluated and improved upon. Prior to October 1983, only informal procedures were used. In October of 1983, nine milestones directing the resolution process were established (7). These milestones were found to be inadequate (49). On 9 March 1984, they were improved upon with the issuance of policy letter No. 012 which expanded the previous nine

AFAA. The AFAA is responsible for conducting internal reviews to determine if the Air Force follow-up systems are adequate and result in timely and appropriate resolution and disposition of audit reports (6:7). They have no authority to actually audit a contractor's records (21:54). When the AFAA conducts an audit, they are not specifically looking for defective pricing. However, if during a normal audit, information is discovered which may indicate defective pricing, this information is relayed to the PCO (21).

DCAA. "Almost all the contract audits are conducted by the Defense Contract Audit Agency (DCAA)[25:1]" with the remainder being conducted by the GAO and DOD IG. The DCAA is required by internal policy to conduct post-award audits on all contracts exceeding \$50 million (45). They are also required to conduct a post-award audit when requested by the PCO. One of the DCAA objectives in conducting a post-award audit is to determine if any defective pricing has occurred. Prior to conducting the audit, the auditor contacts the responsible PCO and requests the certificate of current cost and pricing data, Pricing Negotiation Memorandum (PNM), and all updates relating to the contract negotiations (45). If a defective pricing problem is suspected, the auditor may attempt to resolve the discrepancy in-house with the PCO. If this discrepancy can not be resolved, the post-award audit may include

bility for resolving the case passes to the Staff Judge Advocate Office. The case remains in this phase until resolved by the courts.

### The Discovery Process

Defective pricing is discovered through post-award audits. Only the GAO, DOD IG, and DCAA have the authority to audit a contractor's records (45). Other agencies or individuals such as the AFAA, AFPRO (Air Force Plant Representative Office), or ACO can also identify suspected pricing problems and bring them to the attention of the PCO (Principal Contracting Officer) responsible for that contract (16;45). The PCO can request that the DCAA conduct an audit to determine the validity of any of questioned costs. The DCAA is required by regulation to conduct any audits requested by the PCO (28:807.10;45).

The following diagram depicts this process:

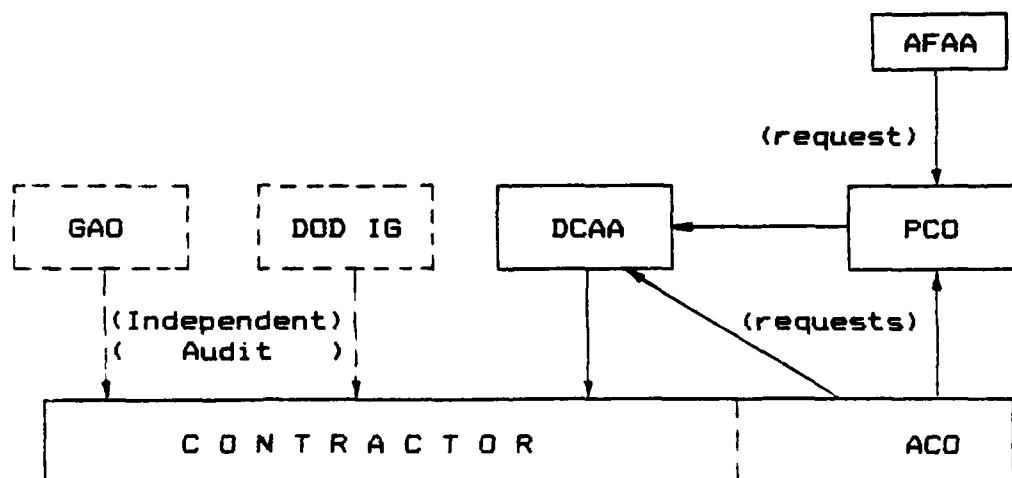


Figure 3. The Discovery Process



Population Selection. The selection process used to determine who would be interviewed was designed to satisfy three criteria. First, the process insured the people selected were knowledgeable in the area being studied. Second, the individuals selected needed to be available to be interviewed at length. Finally, the experts selected had to be willing to provide information to the researchers.

An expert was identified by the researchers as someone meeting two criteria. The person was considered an expert in the field by his immediate supervisor or peers. Additionally, the researchers evaluated the person's working background in the resolution of defective pricing cases in order to establish his credibility as an expert.

The interviews were then conducted at three levels of management -- director level (policy makers), division or branch chief level (supervisors), and the technical specialist level (workers). When possible, at least two experts at each management level, within each command, were interviewed to reduce the probability of the respondents' personal bias being injected into the study. This was not always possible due to the limited number of individuals (approximately 20) available with the required degree of knowledge in defective pricing procedures. An attempt was made to conduct a census of the population by interviewing every expert.

Interview Technique. Prior to beginning the interview, the purpose was explained and permission obtained to use the information gleaned from the interview. In order to reduce

the possibility of the interviewer misinterpreting a response, two techniques were used.

First, both researchers reviewed the questions to be asked prior to conducting the interview. Each researcher participated equally in the interview by asking an equal number of questions. Also, neither researcher concentrated his questions on any particular area of the resolution process. This procedure minimized the introduction of bias by the researchers.

Second, each interview was conducted with both researchers present. Each researcher took separate notes during the interview. The notes were then individually sorted and used to answer each question. Within two days of conducting the interview, the individual notes were compared and a consensus reached as to the actual answer given during the interview. If a discrepancy arose between the two sets of notes, an additional interview was conducted to resolve the discrepancy. This procedure assisted in reducing any tendency on the part of the researchers to slant or alter the answers given by the respondent.

Statistical Analysis Technique. Each case was analyzed at each milestone to determine how well the current procedures met the established constraints. This was accomplished by calculating the mean, median, and trimmed mean for each milestone.

The mean was used to determine the average time all of the cases analyzed required to reach each milestone. The

median revealed the amount of time 50% of the cases required to reach each milestone. The trimmed mean was used to eliminate those cases which tended to skew and therefore distort the mean of the data. Both the mean and trimmed mean provided an unbiased average of the time required. The median is not affected by trimming the data.

For the purposes of this study, a through understanding of what the trimmed mean is describing is required.

A trimmed mean is a compromise between the mean and the median. A 10% trimmed mean, for example, would be computed by eliminating the smallest 10% and the largest 10% of the sample and then averaging what is left over [36:16].

The trimmed means for each Command were compared at each milestone with the lowest trimmed mean selected for use in Chapter 5 as a basis for establishing the recommended time required to complete each milestone. Figure 8 depicts how trimming the mean affects a skewed distribution.

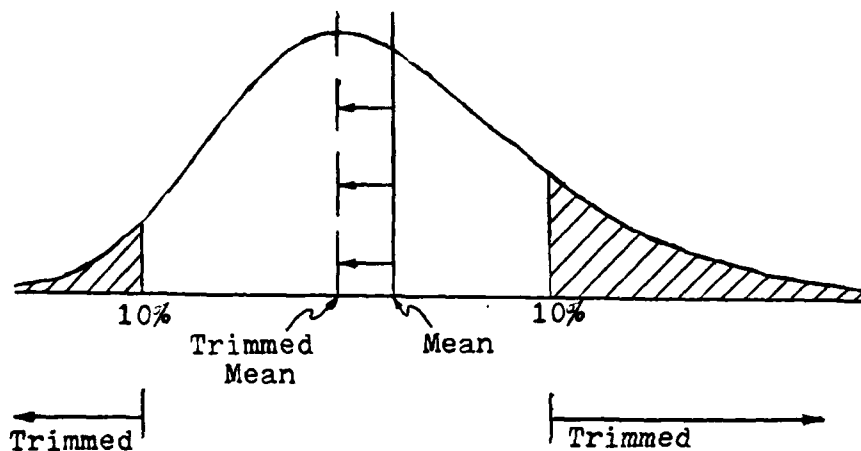


Figure 8. Trimmed Mean

A 15% trimmed mean was used to accomplish the analysis in this study. This percentage provided the most satisfactory results by eliminating most of the outliers throughout the data.

Using a trimmed mean with a moderate trimming proportion (10 or 20%) will yield a measure which is neither as sensitive to outliers as the mean (since any small number of outliers will be deleted before averaging) nor as insensitive as the median [36:16].

Additionally, the area under the curve not eliminated by the trimming method is considered to be the area where a typical case would most likely occur. For this reason, the trimmed mean was used as the principle statistic for our analysis.

#### Resolving the Problem

The goal matrix depicted in Table II breaks down the research problem into successive subordinal categories. The research problem will have been adequately addressed when all three of the goals have been achieved.

| Goals  |   | 1 |   | 2 |   | 3 |
|--|---|---|---|---|---|---|
| Objectives   |   | 1 | 2 | 3 | 4 | 5 |
| R<br>e<br>s<br>e<br>a<br>r<br>c<br>h<br><br>Q<br>u<br>e<br>s<br>t<br>i<br>o<br>n | 1 | X |   |   |   |   |
|  | 2 | X |   |   |   |   |
|  | 3 | X |   |   |   |   |
|  | 4 |   | X |   |   |   |
|  | 5 |   | X |   |   |   |
|  | 6 |   |   | X |   |   |
|  | 7 |   |   |   | X |   |
|  | 8 |   |   |   |   | X |

Table II. Goal Matrix

Goal 1. The first goal of this study, which involves analyzing the existing procedures and identifying the agencies involved, was achieved by accomplishing the first two objectives. Objective 1, which was to analyze the current procedures being used in ASD and the ALCs to resolve defective pricing cases, was achieved by answering research questions 1, 2, and 3. Objective 2, which was to identify the key offices or agencies that are involved and the extent of the services they provide, was achieved by answering research questions 4 and 5.

Research Question 1. Do standard procedures exist in ASD and the five ALCs for resolving defective pricing cases? This question was answered through a comprehensive analysis of directives, regulations, and policy letters

dealing with the resolution of defective pricing cases. The analysis involved a collection of data primarily from ASD policy letter No. 012 and AFLCR 70-18 which evolved from DODD 7640.2. This allowed the construction of defective pricing completion milestone charts for both ASD and the five ALCs which depicted the procedures used to reach each milestone. The data was researched until it became repetitive and exhaustive.

Research Questions 2 and 3. What differences exist between the way ASD and the ALCs process defective pricing cases? If differences do exist, what accounts for the different procedures being used? A comparative analysis derived from a series of interviews at the division or branch chief level (interview questions C, D, and E) along with the milestone completion charts obtained from question 1 were used to answer this question. The procedures used by each command were compared and contrasted. Differences were identified and the procedures examined to determine the reason for the difference.

Research Question 4. Once a defective pricing case has been identified, which government agencies or offices become involved in the case? This question was partially answered by interviewing director and division level experts in the field. The interviews included experts from the DCAA, AFSA, HQ. AFSC, HQ. AFLC, ASD, and the five ALCs. Interview question F addressed this research question. Regulations

governing defective pricing were also reviewed to distinguish the formal relationship between these offices. This provided the researchers with an overall view of the interaction among agencies involved in defective pricing resolution.

Research Question 5. What is the extent of service that these agencies (from research question 4) can provide the pricing offices in resolving defective pricing cases? Research question 4 established which agencies are involved and interview question F established the extent of their involvement. Additional information was obtained from the regulations which govern each agency. This allowed the researchers to determine the extent of service each agency provided. The following figure summarizes the methodology used to accomplish Goal I.

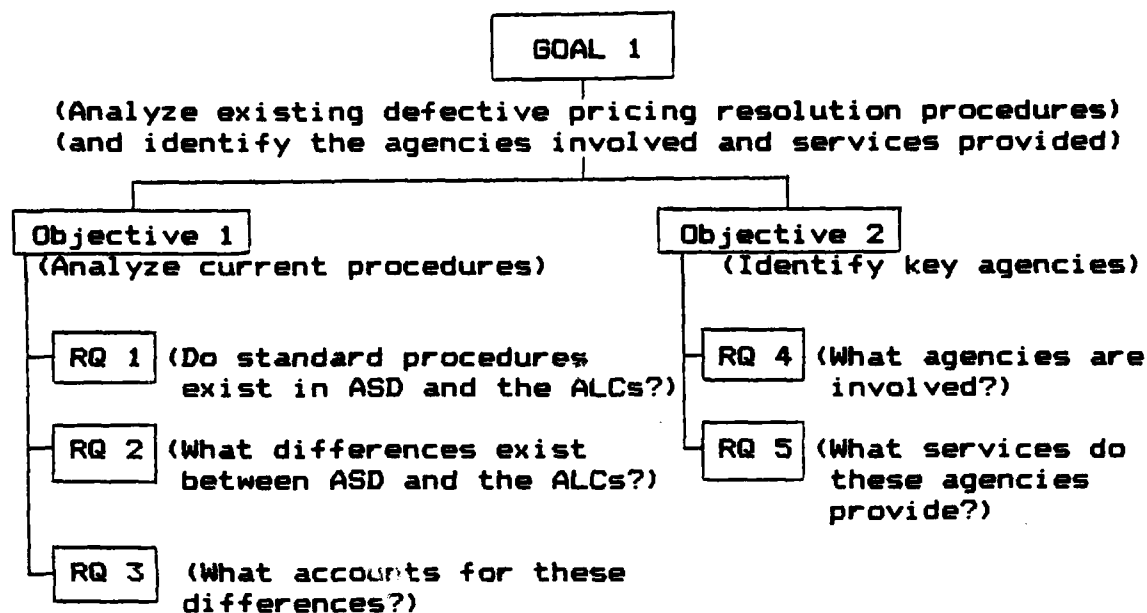


Figure 9. Goal 1 Summary

Goal 2. The second goal of this study, which is to document any bottlenecks, deficiencies, or ineffective procedures that are found was achieved by accomplishing the third and fourth objectives. Objective 3, which identifies any bottlenecks that are caused by the current procedures, was achieved by answering research question 6. Objective 4, which identifies deficiencies and ineffective procedures, was achieved by answering research question 7.

Research Question 6. What bottlenecks exist with the current procedures, and what are some possible solutions to these bottlenecks? A bottleneck is defined as an occurrence whereby the resolution process is delayed due to mitigating circumstances over which the PMF has little control (i.e. awaiting external office coordination). Data to answer this question was obtained from a timeline



analysis of case studies within ASD and the ALCs along with interviews conducted at the branch chief and technical specialist levels.

The actual time it takes to reach each milestone, which was accrued from a case study analysis, was compared against the predicted or expected time according to the milestone chart obtained by answering research question 1 for both ASD and the five ALCs. If a delay occurred in reaching a milestone, the procedures used to reach that milestone were compared against research questions 4 and 5 to determine if the number of agencies involved contributed to the delay. Interviews with branch chiefs and technical specialists were used to determine possible solutions to the bottlenecks. Interview question 6 was used to address this issue.

Research Question 7. What deficiencies and ineffective procedures can be identified in the current procedures being used in the resolution of defective pricing cases within ASD and the ALCs? The term deficiency is defined as a gap or break in the continuity of the existing procedures. Ineffective procedures are defined as those procedures not meeting the time constraints required by DODD 7640.2. Data to answer this question was obtained from the review of case studies accomplished to answer research question 6. Additional information was obtained from interviews at all three levels of management using interview questions H and I.

Once the current resolution procedures had been identified for ASD and the five ALCs, they were analyzed for continuity. In other words, was there a continuous flow from one procedure to the next? This analysis identified any deficiencies (gaps) in the resolution process.

The following methodology was used to identify ineffective procedures. All defective pricing cases completed by ASD between 1 January 1983 and 31 March 1984 (19 cases) were analyzed. A representative sample of 30 AFLC cases completed between 1 January 1983 and 1 January 1984 were also analyzed. This analysis was used to determine the average actual time taken to complete each individual milestone. The cases from the AFLC were chosen by each ALC as representative of their overall caseload with unusual or atypical cases being omitted. This omission of some cases by the ALCs will result in the AFLC calculations being biased to a small degree.

The actual time to reach each milestone was compared to the standard time (as set forth by regulations ASD policy letter No. 012 and AFLCR 70-18) to reach each milestone. If a milestone was not being met, a determination based on expert opinion and data analysis was made as to which procedures within that particular milestone were ineffective.

Additionally, the procedures used to reach each milestone by ASD were compared to those used by the five ALCs. This was previously accomplished by Research Questions 2 and 3. Next, the actual times to complete each milestone for

each Command were compared. This comparison helped to identify those procedures which were more effective in meeting the time constraints at each milestone. The following figure summarizes the methodology to accomplish goal 2.

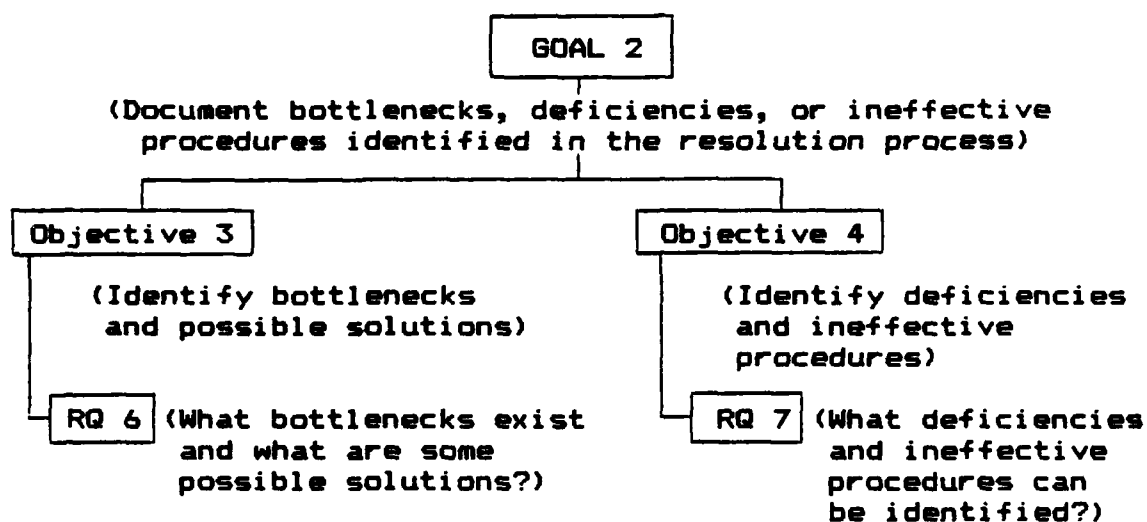


Figure 10. Goal 2 Summary

Goal 3. The third and final goal, which was to develop management tools to assist each command in dealing with problems encountered in the resolution process, was achieved by accomplishing objective 5 which was to identify possible solutions to the problems discovered. This was accomplished by answering research question 8.

Research Question 8. What management tools or guidelines can be developed that would improve the government's position in resolving these cases? This research question was answered once the bottlenecks, deficiencies, and ineffective procedures were identified by answering research questions 6 and 7. Interview question J was used during the initial interview to solicit expert

opinion as to possible solutions to any problems each level of management was presently encountering.

After identifying any resolution problems discovered by the researchers, a second set of interviews was used to present these problems and solutions to the same technical specialists, division chiefs, and directors who were previously interviewed. The purpose of the second interview was to solicit suggestions, to determine if the proposed solutions were practical, and the best method of implementing the solutions. The following figure summarizes the methodology to accomplish the final goal of the study.

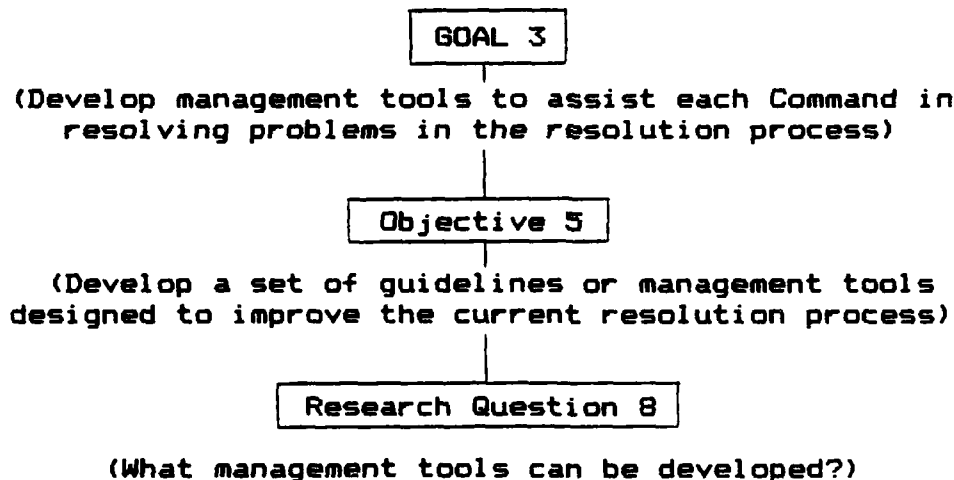


Figure 11. Goal 3 Summary

#### Assumptions of the Study

Some bias was assumed to have been introduced through the interview process despite deliberate steps taken to minimize or eliminate the bias. Because the interviews with the five ALCs were conducted via telephone by a single researcher, the potential for bias was higher here than with

the personal interviews. The researchers assumed that the criteria to identify experts would yield those people with the most extensive knowledge of the current resolution process. Since most of the defective pricing cases are found within AFSC and AFLC, the researchers assume that procedures applicable to these two commands will be useful to the Air Force in general.

#### Limitations of the Study

The study has several limitations that should be clearly identified. One limitation is that the study focused primarily on ASD and the five ALCs. This should be a minor limitation since the procedures used by ASD and the five ALCs are representative of AFSC and AFLC. Currently, a majority (59%) of the overdue defective pricing cases within AFSC are found within ASD (39) although in the past, this has been as high as 90% (23:6). Time was another limitation. Sufficient time was not available to field test the proposed solutions and recommendations. Nor was there sufficient time to conduct a longitudinal study versus a cross-sectional study. This would have allowed the researchers to evaluate the impact of different procedures on the resolution process. Finally, the limited amount of formal procedures existing within AFLC required more weight being placed on subjective data. Only one AFLC regulation (AFLCR 70-18) was being used by AFLC HQ.

## Summary

The research for this study was designed to accomplish three goals. The first goal was to establish the current resolution procedures being used by ASD and the ALCs to resolve defective pricing cases. The second goal was to identify any bottlenecks, deficiencies, or ineffective procedures in use. Finally, the third goal was to develop managerial tools to assist in providing solutions for problems found in the resolution process.

Each goal was divided into objectives and each objective broken into research questions. Data was gathered through a series of interviews, from an exhaustive review of all regulations pertaining to defective pricing within AFSC and AFLC, and by a detailed analysis of completed cases. The study considered ASD as representative of AFSC and the five ALCs as representative of AFLC since they control a majority of the defective pricing cases within their respective Commands.

This methodology has allowed the gathering of data and provided a structured procedure for the analysis of that data. Chapter IV is concerned with the actual gathering of data and its analysis which will result in the answering of the eight research questions of this study.

provide additional services when requested by the PCO or Pricing Office but do not generally become involved in any one case on a continuous basis. Figure 16 depicts these combined interagency relationships.

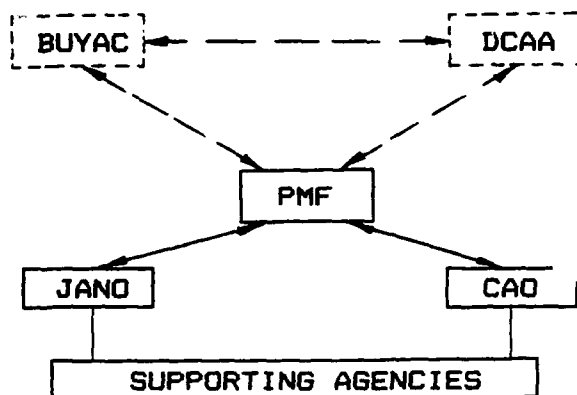


Figure 16. Supporting Agency Involvement

The services provided by the JANO consist of legal reviews of the audit allegation, contractor's response, and any contractual modifications. Additionally, the PCO and Pricing Office may request legal assistance from the JANO at any point in the resolution process.

#### Bottlenecks, Gaps, and Ineffective Procedures

Questions 6 and 7 are concerned with identifying bottlenecks, deficiencies (gaps), and ineffective procedures. These problem areas were identified through a case study analysis of completed cases. The analysis centered on a comparison of how the ALCs and ASD were actually meeting the time constraints at each milestone. Differences between the standard time allowed (i.e. time recom-

the responsibility for the accomplishment of specific milestone procedures. However, he does maintain overall responsibility for the final disposition of the case. Within ASD, on the other hand, the buying activity is assigned sole responsibility for the accomplishment of specific procedures. This was depicted previously in Figures 12 - 14. Additionally, the buying activity, as with the ALCs, retains overall responsibility for the final disposition of the case.

Ultimately, the individual PCO's within each Command, with proof of legal sufficiency, are the final authorities on the resolution of all defective pricing issues under their jurisdiction (16).

Support Agencies. Normally there are two additional agencies which lend support to the Pricing Office in the resolution process. They are the JANO (Staff Judge Advocates Office) and the Cognizant Contract Administration Offices (CAO). Although not normally involved in Air Force defective pricing cases, the Cognizant Contract Administration Offices (CAO) such as the Air Force Plant Representative Office, Navy Plant Representative Office, Army Plant Representative Office, and the Defense Contract Administration Service (DCAS) can provide assistance on a limited basis. Assistance is not restricted to just rate calculations and may be provided in any capacity when requested by the PCO or Pricing Office. These agencies



suspects that defective pricing has occurred, a formal report is issued specifying the defective pricing allegation. This report is sent to the respective buying activity.

The buying activity (PCO) is required to respond to the DCAA audit recommendations. If variances exist between the DCAA recommendations and the Pricing Office's position as defined in the PNM, the case is elevated to the DISAO for a decision.

The DCAA auditor, the Pricing Office, and the PCO should now be able to establish a unified Air Force negotiation position. From this point on, the DCAA auditor assumes an advisory role, providing additional advisory services and inputs when requested.

Buying Activity. The buying activity is the office or official (PCO) responsible for the initial negotiation of the contract. "The principle contracting officer (PCO) is responsible for making determinations in connection with the Defense Contract Audit Agency (DCAA) - reported defective pricing cases [3:71]."

The PCO receives the DCAA audit report and forwards a copy of it to the Pricing Office. The responsibilities of the PCO from this point on differ within the two Commands. The differences lie in the level of involvement of the buying activity in the resolution process.

Within the ALCs, the buying activity is not assigned

between the audit report and the negotiation records. Second, if a contradiction is discovered which can not be resolved between the PCO, PMF, and DCAA, the discrepancy is elevated to the Designated Independent Senior Acquisition Official or board (DISAO). After reviewing the case, the DISAO issues a recommendation resolving the discrepancy and directing how to proceed with the case (30:3).

The third step in the process entails the actual negotiations with the contractor which are conducted in an attempt to resolve the defective pricing audit allegation. There is continuous interaction between the Pricing Office, PCO, and DCAA auditor during these negotiations.

Even though the Pricing Office's overall tracking responsibilities of the defective pricing cases are the same for both ASD and the five ALCs, one main difference was noted. This difference involves the utilization of the Staff Judge Advocate's Office. Within the ALCs, the Pricing Office does not normally get the JAND involved prior to negotiations with the contractor (18;19;20;24;38;51). In contrast, a legal review of the audit allegation and contractor's response is always required prior to developing the Air Force Objective in ASD cases (3;7).

Defense Contract Audit Agency. The DCAA is the independent audit agency responsible for conducting post-award audits. Defective pricing is normally discovered during this post-award audit process. If the DCAA auditor

Time is then allotted on a procedural requirement basis.

#### Government Agency Involvement

Once a defective pricing case has been identified, several agencies become involved in the resolution process. Which agencies get involved and the extent of the service which they can provide forms the basis for answering research questions 4 and 5. The same agencies are utilized by both ASD and the five ALCs; however, the extent and precedence of their involvement varies between Commands. During the resolution process, three primary offices or agencies are normally involved. They are the Pricing Office (PMF), the Defense Contract Audit Agency (DCAA), and the Buying Activity (BUYAC).

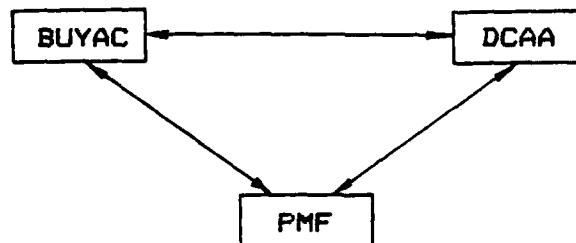


Figure 15. Primary Agency Involvement

Pricing Office. The Pricing Office is responsible for following up the DCAA audit recommendations contained in the post-award audit report. The first step in which the Pricing Office gets involved in this process entails validating the audit report and reviewing the Price Negotiation Memorandum (PNM) to make sure no contradictions exist

A difference in OPRs for the distribution of the findings was also noted between the two Commands. Within each ALC, the Pricing Office (PMF) is responsible for distributing the findings; whereas, in ASD the buying activity is responsible for distributing them.

The question as to why differences in procedures existed between ASD and the five ALCs was also addressed. The differences which were noted were based primarily on past experience and personal preference within each Command. However, the fact that ASD changes OPRs would in itself require that separate definable procedures exist in order to hold the different OPRs accountable. Part of the time frame difference found between the individual milestones may already have been accounted for by the inclusion of additional procedures by ASD. ASD also feels that by dividing the work between offices, the time frame can be condensed (17). The ALCs, on the other hand, feel that by keeping the process within a single office, inter-office delays can be reduced thereby expediting the process. Time allotments are based on each Command's experience as to how much time should be allowed for each milestone in order to satisfy the six-month time constraint. AFLC feels that the bulk of the work to be accomplished occurs during milestone 3. Therefore, the largest amount of time is allotted to this milestone. ASD, on the other hand, sub-divides the milestones into more definitively separate procedures.

As has already been mentioned, the case file and settlement document must be reviewed and approved by the ASD/PMC Contract Review Committee prior to the PCD releasing the settlement (3:3). Also, in the case where there is no agreement and a final decision has been determined, the buying activity is required to obtain legal approval from the JANO. These approvals are not required by the ALC procedures. Figure 14 depicts the milestone 4 comparison.



". . . reviewed at a level equal to the authority to approve [12:7]". The Director of Contracting and Manufacturing, or his equivalent at the ALCs, ". . . must approve objective or negotiated prices that deviate significantly from the auditor's recommendations [12:7]". The term "significantly" is not defined within AFLC regulations. However, within ASD, negotiated settlements should not be less than 90% of the recommended amount (3:2).

Another apparent difference is the OPR assignment. Once again, as with milestone 2, the single OPR within the ALCs is the Pricing Office. They are responsible for completing all procedures within this milestone. ASD utilizes a different assignment process. Whereas overall tracking responsibility remains with the Pricing Office, the OPR for each individual milestone procedure varies between the buying activity and the PMF.

Milestone 4. During the comparative analysis of the procedures associated with Milestone 4, differences were noted in the same three areas as with the previous milestones. These areas were: time allowed, procedures required to be accomplished, and OPRs.

Each ALC is allotted 20 days to report and distribute the findings. In contrast, ASD is allotted 30 days. However, this 30 day period includes an additional procedure not included in the ALC milestone, that being - obtain required approvals. Discounting the time allowed to

PMF's evaluation, and the initial legal comments are sent to the DCAA. Two days are allowed for the compilation of the package and another 30 calendar days are allowed for the DCAA to respond.

The second office from which assistance is requested is once again the Staff Judge Advocates Office (JANO). The ASD procedures are designed to keep the JANO informed periodically throughout the process. For instance, under the ASD procedures a JAG (legal representative from the Staff Judge Advocate Office) opinion is always required prior to developing the Air Force Objective (Air Force negotiating position). As is always the case, all assistance is requested in written form so as to alleviate problems later on. The ASD procedure allows the JANO 30 days to provide a written legal opinion on the case. A JAG opinion is not required and is normally not obtained under ALC procedures prior to developing the Air Force Objective (18;19;20;24;38;51).

On initial inspection, there appear to be two additional procedural differences under this milestone - conduct fact-finding and present prenegotiation briefing(s). Even though not specifically enumerated, fact-finding is conducted as part of the ALC procedure for developing the Pricing/PCO evaluation. In addition, while the ALCs do not list "present prenegotiation briefing(s)" as a separate step, they are required to have the PCO's decision

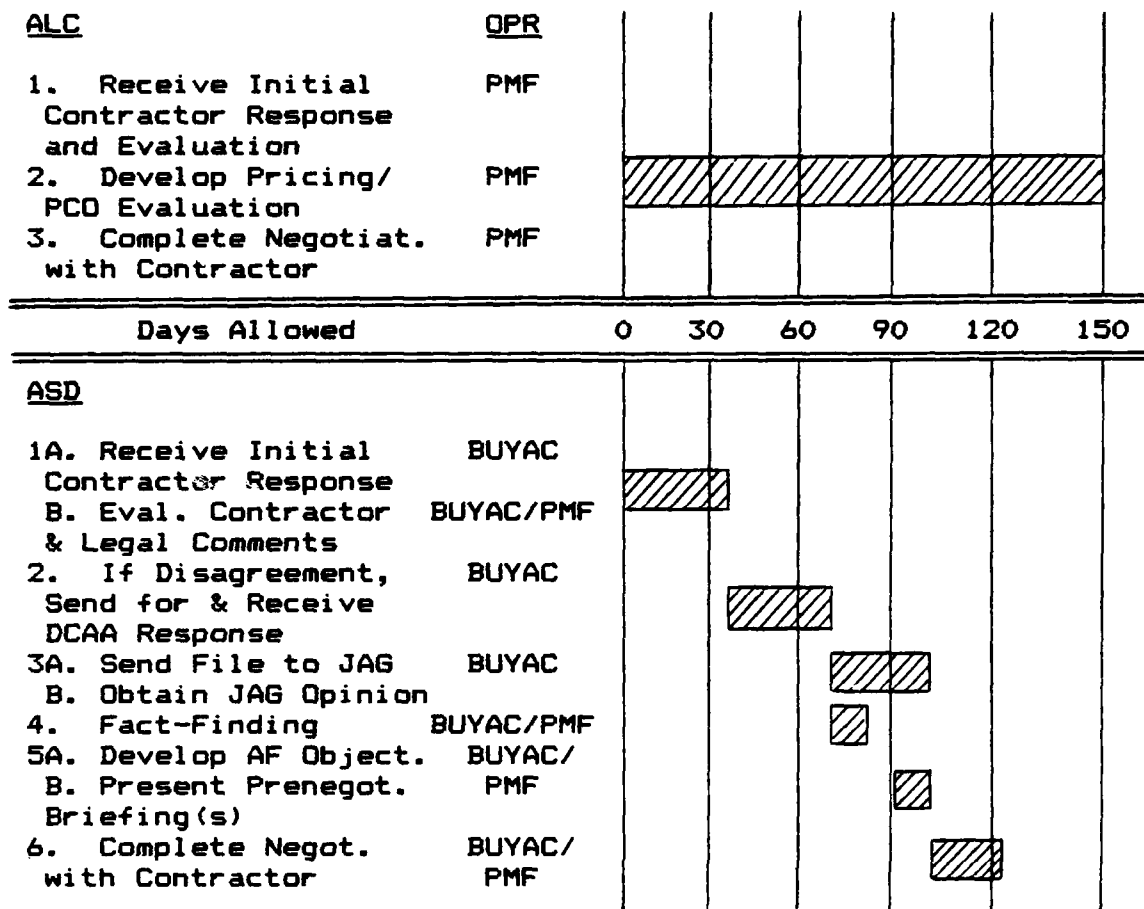


Figure 13. Milestone 3 Comparison

Only two significant procedural differences were noted between the two Commands. Both of these were concerned with ASD's procedures and involved seeking outside assistance and remarks. The two offices from which assistance should be requested are the DCAA and the JANO.

Since the entire case is based on the findings of the DCAA's post-award audit, anytime a disagreement arises with the initial audit findings ASD feels that the DCAA should be brought back into the resolution process. A package consisting of a copy of the contractor's rebuttal, the



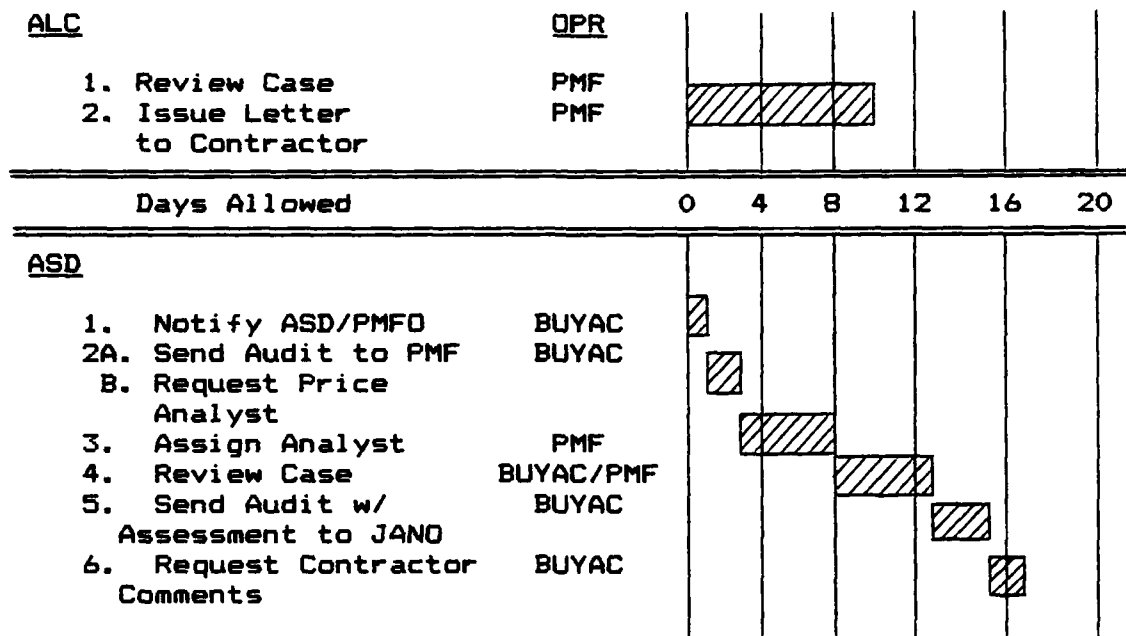


Figure 12. Milestone 2 Comparison

Milestone 3. Time allowed, procedures required to be accomplished, and the OPR were once again noted as the three areas of difference under Milestone 3. A significant difference exists in both the amount and the distribution of the time allotted for completion of the milestone. Each ALC is allowed more time (150 days) than ASD (123 days). However, the ALC procedures are all grouped together under one time frame. All of the milestone procedures must be completed within the 150 days allowed. In ASD, the 123 days are sub-divided with a specific number of days being allocated to each procedure. Figure 13 depicts this.

each procedure. This is depicted in Figure 13.

actions required under this milestone. The additional week allotted in the ASD time frame may be partially accounted for by the two procedural differences noted below.

Both the assignment of a price analyst and the requirement for an initial legal review constituted differences in the procedures used by the two Commands. The buying activity (buyac) within the Aeronautical Systems Division (ASD) must send the audit to the Pricing Office and request that a price analyst be assigned to the case. This is not required at the ALCs since the case is initially directed to a price analyst within the Pricing Office, which remains as the Office of Primary Responsibility (OPR). The second procedural difference involved the need for a review of both the audit and the PCO's assessment of the audit by the JANO. The ALCs do not require any such legal assistance this early in the resolution process. They are, however, not precluded from obtaining a legal review if their Pricing Office deems one necessary.

As alluded to in the previous paragraph, the OPRs within the two Commands may also be different. Within the ALCs, the OPR for all procedures remains with the Pricing Office. However, within ASD the OPR is dependent on the individual milestone procedure. The following figure (Figure 12) depicts each procedure, its corresponding OPR, and the time allotted for completion.

differences were highlighted by a comparative analysis of the timeline used in constructing the milestone charts. This formed the basis for the answer to research questions 2 and 3.

The standard procedures incorporated in each milestone are not as explicitly defined in the ALC milestones as they are in each ASD milestone. However, the procedures contained in the four ALC milestones do encompass all of the procedures covered by the sixteen ASD milestones. Therefore, for the purposes of this analysis, all milestone activities will be referenced in relation to the ALC milestones.

Milestone 1. The resolution process begins with milestone 1. This milestone is the same for both Commands and consists of the receipt of the defective pricing audit. In each case, zero days are allotted for this milestone. Since the procedures and the time allowed are the same for each division, no differences were noted.

Milestone 2. During the comparative analysis of milestone 2, differences were noted in three areas: time allowed, procedures required to be accomplished, and the Office of Primary Responsibility (OPR). The most apparent of these differences is the time allowed to complete the milestone procedures. The ALCs are allowed 10 days; whereas, ASD is allotted 17 days to complete similar

#### IV. Procedure Analysis and Appraisal

##### Introduction

As stated previously, this chapter provides an analysis of the information gathered to accomplish the goals and objectives of this study using the methodology detailed in Chapter III. More specifically, the purpose of this chapter is to address research questions 2,3,4,5,6, and 7 which contribute to meeting the first four research objectives.

Research question 1 asked if standard procedures exist in the Aeronautical Systems Division and the Air Logistics Centers for resolving defective pricing cases. Aeronautical Systems Division (ASD) policy letter No. 012 and AFLCR 70-18 identified the detailed standard resolution procedures being used within the respective operational divisions. These procedures have already been thoroughly detailed in Chapter II (Pp. 28 - 36) and form the basis for the construction of the defective pricing milestone completion charts. These charts are used extensively in the analysis of the differences between the resolution procedures used within the Systems and Logistics Commands.

##### Case Resolution - Command Procedural Differences

Differences exist in the process being used by ASD and the five ALCs in resolving defective pricing cases. These

mended by the governing regulation) and the actual time needed to accomplish each milestone were noted. An investigation of these differences highlighted areas of possible bottlenecks, deficiencies, and/or ineffective procedures.

Milestone 1. The ASD procedure for Milestone 1 appears to be deficient. There is no standard policy specifying that the audit report go directly to the Pricing Office. This has resulted in the DCAA not always sending the audit report directly to the PMF. In 5 of the 19 cases reviewed, the report was initially delivered to the SPO (System Program Office) and then forwarded to the Pricing Office (53:E16,D69,E55,E56,D73). This resulted in an unnecessary delay. Sufficient case documentation could not be found to determine if the ALCs were having a similar problem with this procedure; however, interviews with ALC experts suggested that the audit report was being delayed prior to reaching the PMF (18,19,20,38,48,51).

Milestone 2. Milestone 2 covers those procedures involved from the time the case arrives at the Pricing Office till the point where the contractor is officially notified of the audit findings (See page 57). The ALC procedures under this milestone require that the case be prepared and reviewed. This milestone culminates with the formal notification to the contractor of the defective pricing allegation.

ALC. AFLCR 70-18 specifies that 10 days be allowed from the time of receipt through the completion of milestone 2. A Headquarters AFLC analysis of 30 cases revealed that the data was positively skewed. A mean (average) of 56 days was required from receipt through the completion of this milestone; whereas 50% of the cases, as identified by the median, required 22 days.

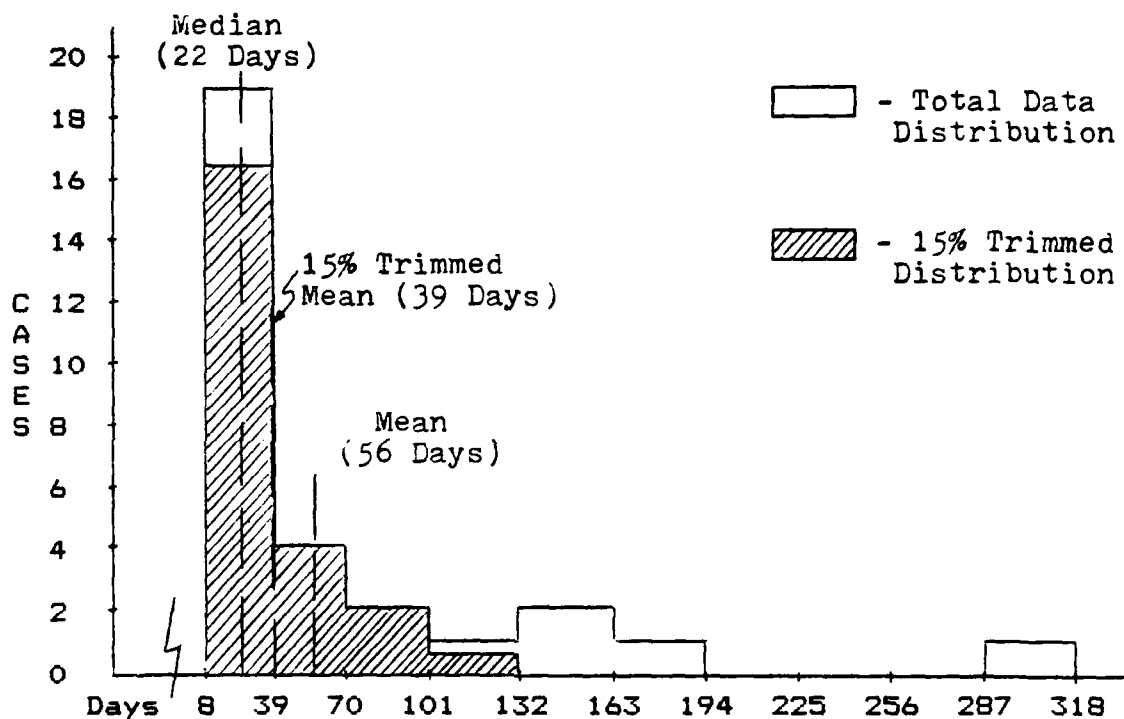


Figure 17. ALC Milestone 2 Data Distribution

Because of the skewness of the distribution, a 15% trimmed mean statistic (designed to eliminate outliers, as discussed in Chapter III) was used to get a more realistic average (39 days) of the time required for a typical case.

The Headquarters AFLC analysis determined that approx-

imately 42 days elapsed, on the average, for the individual procedure of reviewing the case (33). Further analysis of our own revealed that a median of 15 days and a 15% trimmed mean of 22 days were required to accomplish this step (33). This indicates that in 50% of the cases the contractor was notified in 15 days or less. Additionally, the trimmed mean indicates that an average of 22 days were required to accomplish a typical case. The significant difference between the trimmed mean and the mean of the full data set (20 days) was due to the presence of outliers which tended to distort the mean.

The exact cause of the outliers could not be determined by the investigators. The only explanation offered by Headquarters AFLC for the excessive amount of time required was that unexpected problems were encountered which are not anticipated to recur (33).

Interviews with experts at the ALCs revealed further insight into the problem of reviewing the case. Prior to the 29 November 1982 AFLCR 70-18 guidance, Ogden ALC allotted 30 days for milestone 2 completion, according to Mr. Bob Beverage, Deputy Chief for Pricing at Ogden ALC. (19) The current guidance (AFLCR 70-18) allows only 10 days to receive, prepare and review the case, and then issue an allegation letter to the contractor (12). Most of the experts at the ALCs have stated that the amount of time to review the case is not compatible with this

reduced time constraint. Therefore, some of the ALCs are choosing to send the letter of allegation prior to completing the review of the case, or are instead reviewing the case with full understanding that they will not meet the 10 day time constraint (19;20). Figure 18 consolidates the statistical analysis of ALC milestone 2.

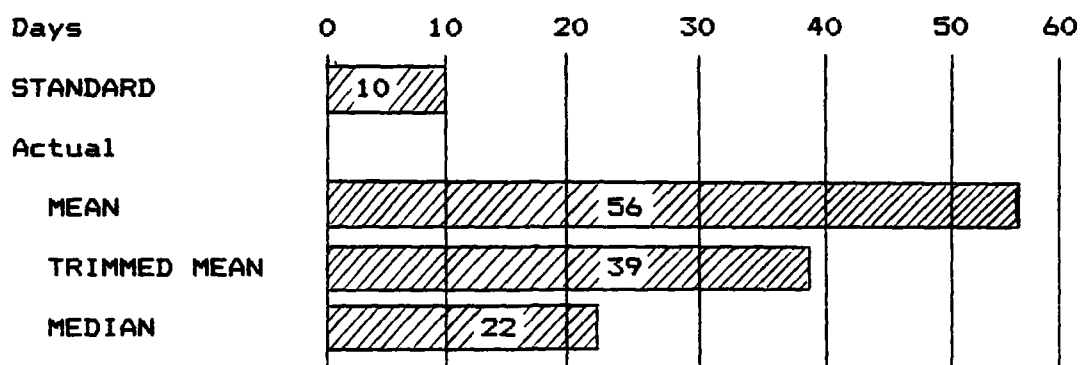


Figure 18. ALC Milestone 2 Summary

ASD. Although more detailed than the ALC procedures, the ASD procedures accomplish the same objective. ASD policy letter No. 012 specifies that a total of 17 days be allowed for the completion of Milestone 2. An analysis of all cases completed between 1 January 1983 and 31 March 1984 (19 cases) revealed that this data was also positively skewed. A mean (average) of 72 days was required to complete this milestone. Additional analysis revealed a median of 35 days and a 15% trimmed mean of 52 days as depicted in Figure 19.



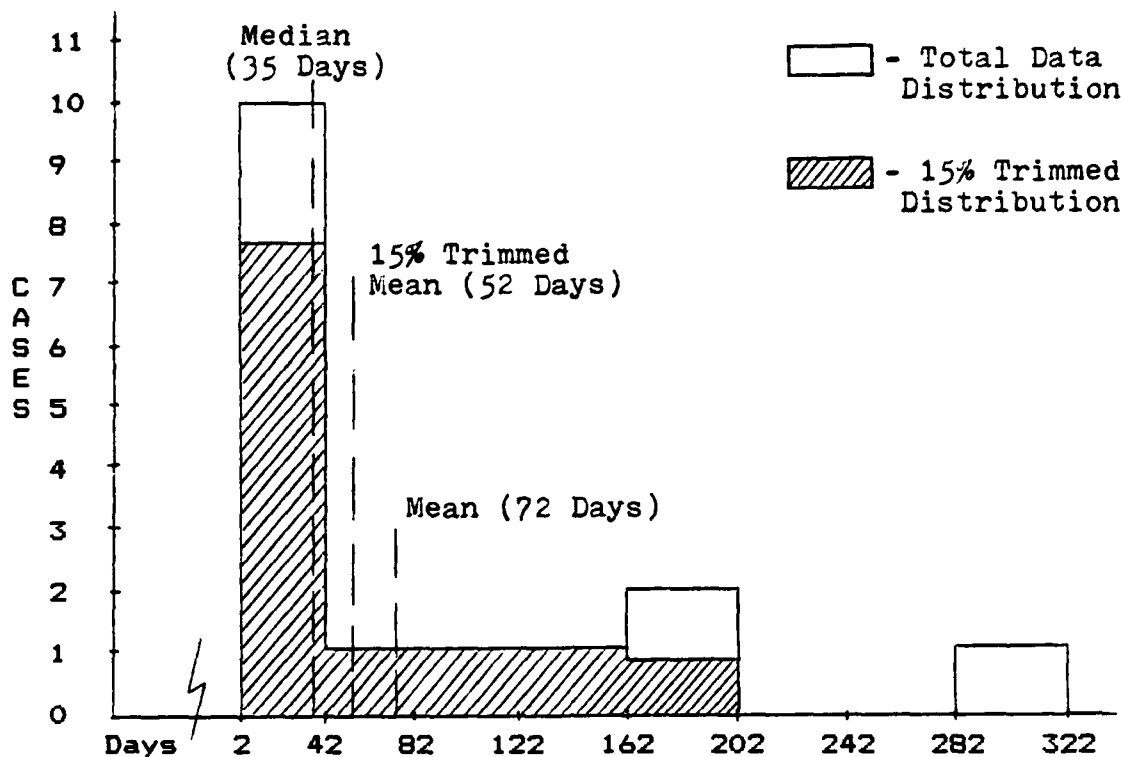


Figure 19. ASD Milestone 2 Data Distribution

This analysis indicates that in 50% of the cases this milestone was completed by ASD in 35 days or less. Additionally, the trimmed mean indicates that an average of 52 days were required to accomplish this milestone in a typical case. The 20 day difference between the trimmed mean and the mean of the full data set was accounted for by the presence of outliers, or atypical cases.

The primary cause of the outliers in the ASD cases centers around the procedure of reviewing and assessing the case issues. This procedure appears to be a bottleneck due to mitigating circumstances involved over which the PMF has little control. Our investigation revealed two causes of

this lack of control.

The first circumstance occurs when the PCO and DCAA can not initially reach an agreement on the audit report findings. The second circumstance occurs when sufficient information is not readily available to properly assess the case. This requires that additional fact-finding be initiated. In both situations, additional time is required. With the exception of the procedure - review and assess case issues - our analysis did not reveal any other problems with this milestone. Figure 20 consolidates the statistical analysis of ASD milestone 2.

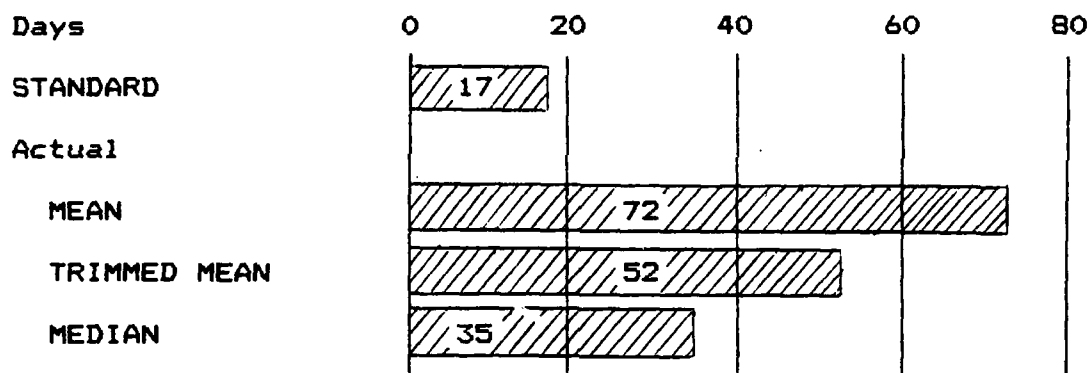


Figure 20. ASD Milestone 2 Summary

In summary, the procedure - review and assess the case - appears to be a common problem within each Command. This bottleneck does not create a problem, however, until mitigating circumstances (such as disagreement over the audit findings or inadequate information) arise, resulting in an inflation of the amount of time required to accomplish the milestone. When these circumstances do not

occur (i.e. when outliers are omitted), the trimmed mean indicates that an average of 39 days for the ALCs and 52 days for ASD are required to complete this milestone in a typical case. No deficiencies or ineffective procedures were identified for either Command in accomplishing this milestone.

Milestone 3. Milestone 3 is the most complex and demanding of the four milestones. The procedures which comprise this milestone begin with those efforts necessary to make sure that the contractor's comments are received in a timely manner. This milestone includes an evaluation of the contractor's response and any associated fact-finding that is required by the PMF, PCO, JANO, and if necessary, the DCAA. Not until either the negotiations are completed or an impasse is reached, is this milestone concluded (See page 58). The majority of the interactions and the largest time requirement occur within this milestone.

ALC. AFLCR 70-18 allocates 150 of the 180 available days for completion of Milestone 3. The Headquarters AFLC analysis revealed that an average of 314 days were required to complete this milestone according to their sample of 30 cases (33). Our analysis revealed that the data was positively skewed with a median of 249 days and a 15% trimmed mean of 267 days.

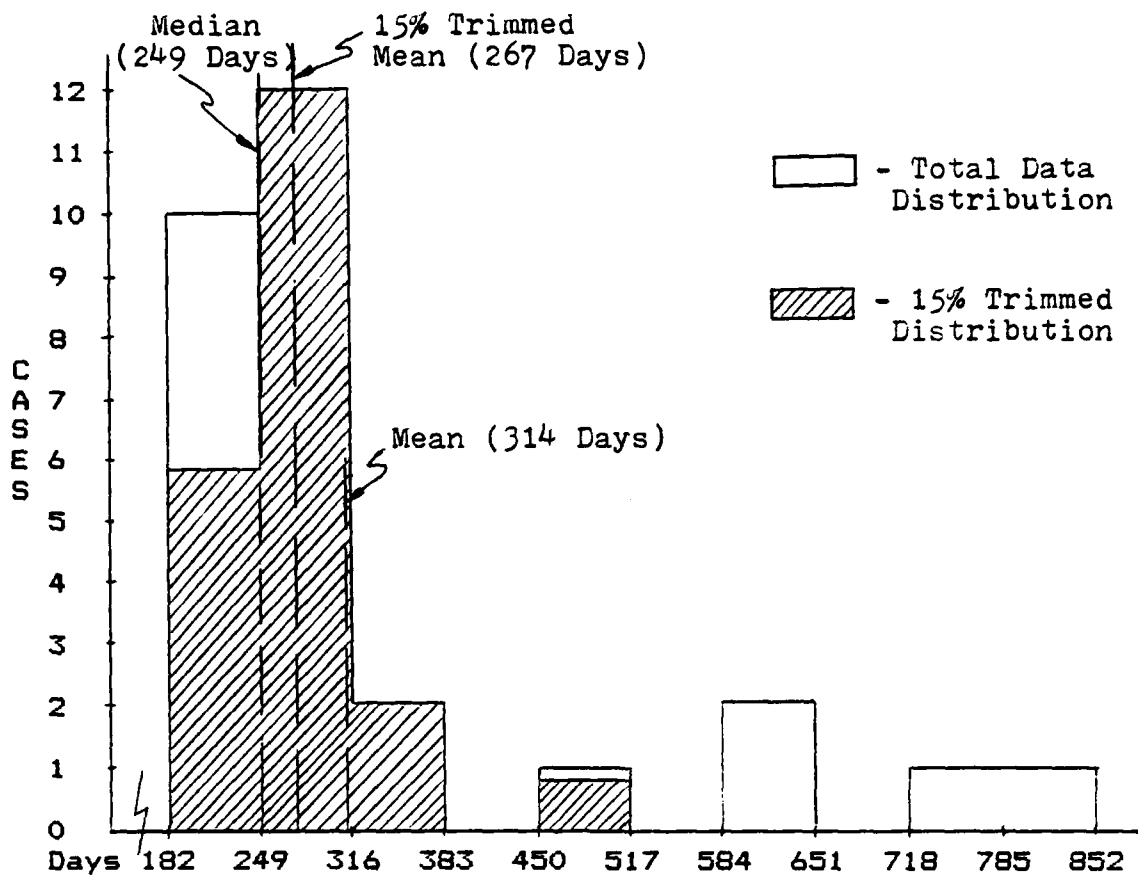


Figure 21. ALC Milestone 3 Data Distribution

An analysis of the outliers highlighted two problem areas. They are receiving the contractor's reply and evaluating the contractor's comments.

The procedure being used by the ALCs for obtaining a timely contractor reply appears to be both ineffective and deficient at meeting the time constraint in some cases. The AFLC analysis determined that an average of 89 days were required to obtain a reply from the contractor. Additional analysis determined that a median of 67 days and a 15% trimmed mean of 55 days were necessary to obtain the contractor's reply. A significant difference (34 days)

exists between the mean and trimmed mean.

An analysis of the outliers identified three factors which accounted for this procedure not meeting the time constraint. First, the current procedure provides no incentive for the contractor to provide a timely reply (48). Second, according to Ms. J. Cody, Warner Robins ALC, "some of the contractor's replies contain elements of cost [which are] questioned [33:Robins]." Disagreements on questioned costs can result in an iterative process as discussed in the following paragraph. The time constraint does not allow for this iterative process. This is a common problem among all of the ALCs. Finally, when defective pricing occurs at the sub-contractor level, coordination must be routed through the prime contractor (15), which requires additional time not allowed by the current procedures. No specific instructions could be found within AFLC regulations as to how to prevent this delay from occurring.

The procedure being used by the ALCs for evaluating the contractor's comments appears to be resulting in a bottleneck. An iterative loop involving the contractor, DCAA, and Pricing Office can occur at this stage. The loop begins when the contractor's reply is received by the PMF. This reply may require additional DCAA input. The contractor is then required to address any revisions by the DCAA. This second reply is then forwarded by the contract-

or to the Pricing Office. Once again, DCAA input may be required. This looping process may involve several iterations before it is complete (33:McClellan). A bottleneck results from this looping process because the Pricing Office no longer maintains control of the resolution process while awaiting the DCAA and contractor comments.

The ALC negotiation procedure appears to be sufficient at meeting its objective but not at meeting the time constraint imposed. Each negotiation is a unique and nebulous process involving many non-quantifiable aspects. Our analysis determined that an average of 112 days were required to complete negotiations with the contractor (33). Additional analysis revealed that 50% of the cases (median value) required 83 days or less to complete negotiations. By using a 15% trimmed mean, the average time to complete this step in a typical case was 91 days.

The time constraint, rather than the actual procedure, appears to be ineffective in that it does not allow for all the varying complexities involved in negotiations. For example, the time required for negotiations in 6 cases exceeded the total amount of time allowed for the entire 180 day resolution process (33). Figure 22 depicts the statistical relationship of ALC milestone 3.

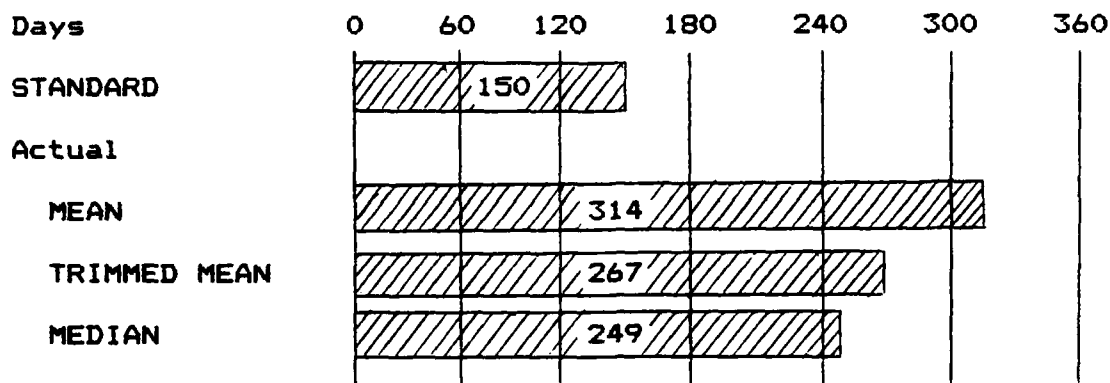


Figure 22. ALC Milestone 3 Summary

Due to detailed data not being available on the procedures being used by the ALCs for this milestone, the results of the ALC statistical analysis may not be as representative of the true situation as are the results of the ASD milestone 3 analysis which follow.

ASD. The procedures being used by ASD within the Air Force Systems Command to accomplish Milestone 3 parallel those of the Air Force Logistics Command. Aeronautical Systems Division policy letter No. 012 specifies that a total of 123 days be allowed for the completion of milestone 3 (3).

An indepth graphical analysis of the trimmed data of the 19 ASD cases revealed a bimodal distribution. In order to better evaluate the data, it was divided into two groups. The first group, consisting of 7 cases, did not appear to be skewed and therefore was not trimmed. It had a mean completion time of 124 days and a median of 126 days. The second group consisted of 12 cases and appeared

to be positively skewed. This group was then trimmed to eliminate the outliers. The remaining 8 cases had a trimmed mean completion time of 471 days with a median of 445 days. The following figure graphically displays the bimodal distribution.

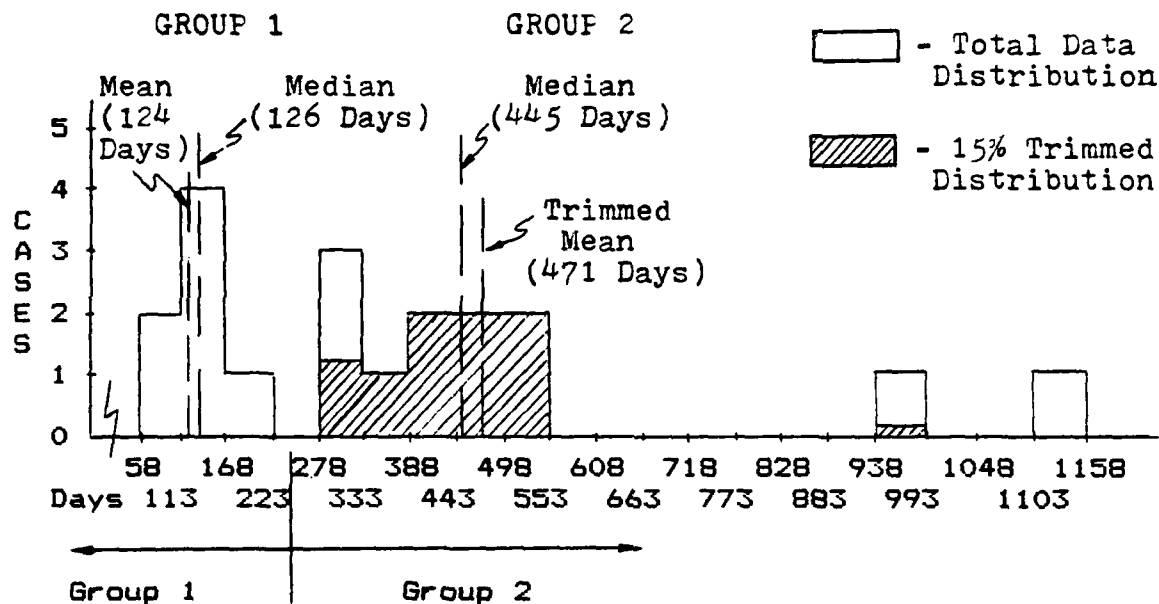


Figure 23. ASD Milestone 3 Data Distribution

Interviews with ASD experts and an analysis of ASD data highlighted problems similar to those encountered in the ALCs (17;53). They were: evaluating the contractor's comments and receiving the contractor's reply. Time allowed for negotiating with the contractor also appears to be a problem based on our sample.

The procedure being used by ASD for evaluating the contractor's comments results in a bottleneck similar to



that encountered in the ALCs. This bottleneck appears to be resulting from the more detailed involvement of the JANO in the evaluation of the contractor's response. The only explanation that could be found for the division in the data was that the cases required either minor or extensive legal review. There appeared to be no middle ground. This step in the milestone appears to be the cause of the bimodal distribution.

The procedure being used by ASD for obtaining a timely contractor reply (30 days allowed) appears to be ineffective and deficient at meeting the time constraint for the same reasons as were identified in our ALC procedure analysis. Based on our sample, the average time from the full distribution required to receive the contractor's response was 82 days. The median was 85 days and the 15% trimmed mean was 83 days. Seven of the cases exceeded 100 days to accomplish this single procedure.

The ASD Procedure for completing contractor negotiations appears to be adequate, but the time frame allowed appears ineffective. ASD policy letter No. 012 specifies 20 days to complete negotiations (3); however, only three of the cases reviewed met this time constraint. The average number of days required was 43 days with 50% of the cases requiring more than 35 days. After trimming the distribution, the mean fell to 37 days. Figure 24 depicts the overall ASD milestone 3 analysis.

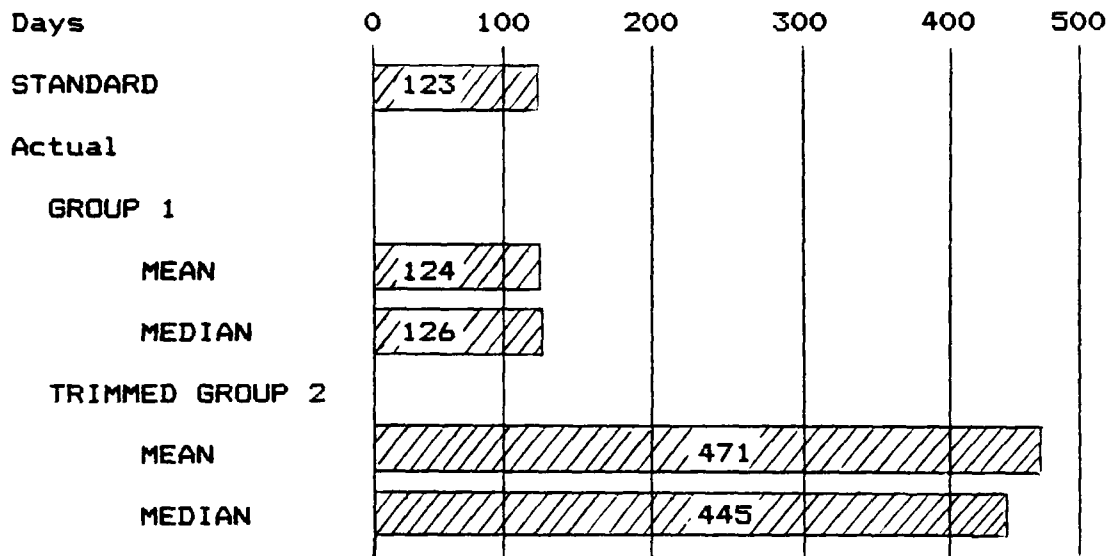


Figure 24. ASD Milestone 3 Summary

In summary, there appear to be two common problems with the procedures within ASD and the ALCs in accomplishing this milestone. First, the procedures being used to obtain a timely contractor reply appear to be both ineffective and deficient at meeting the time constraint in each Command. Second, in each Command the procedures being used to evaluate the contractor's response resulted in a bottleneck. The primary difference noted between the two Commands lies in the increased involvement of the JANO in the ASD resolution process. The amount of JANO involvement appears to account for the division in the actual ASD milestone completion times.

Finally, no problems were identified in the negotiation procedures. However, the time constraints appear to be inadequate in each Command.

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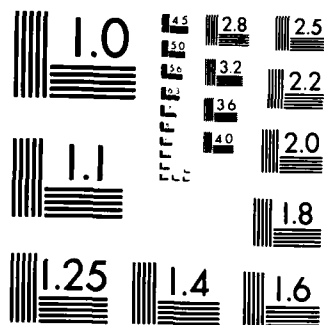
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Milestone 4. Milestone 4 consolidates the findings of the resolution process. The procedures within this milestone entail preparing and distributing the final decision. Each Command accomplishes this milestone in a similar manner (See page 61).

ALC. Within the ALCs, this milestone consists of two procedures: preparing and distributing the final decision. The final decision can take the form of a supplemental agreement (contract modification), determination and findings, or letter of withdrawal. According to AFLCR 70-18, 20 days are allowed to complete this milestone.

The Headquarters AFLC analysis determined that an average of 50 days were required to prepare and distribute the final decision (33). The median time for completion was 53 days. A graphical analysis revealed that the distribution of the ALC cases was slightly negatively skewed. The trimmed mean was calculated at 52 days. Figure 25 depicts this distribution.

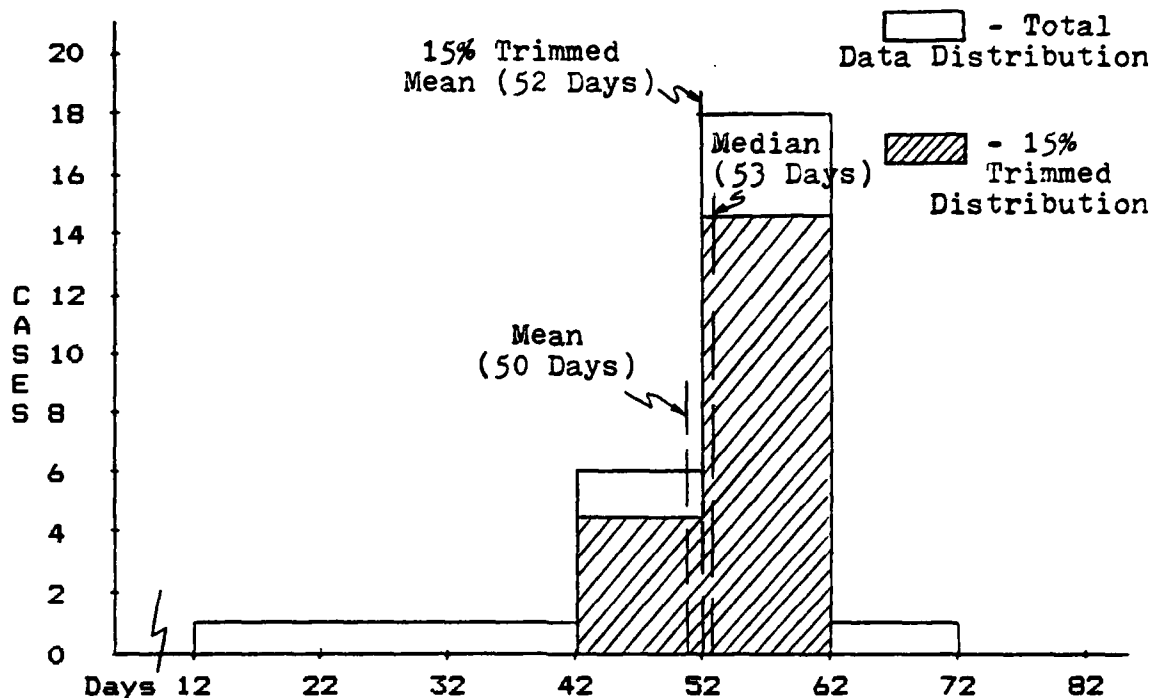


Figure 25. ALC Milestone 4 Data Distribution

An average of 8 days were required to prepare the PNM. In this case, the mean, median, and trimmed mean were all equal to 8 days. Additionally, an average of 42 days were required to prepare the contract modification and distribute the final decision (33). The median indicated 45 days were required for this step with a trimmed mean of 44 days. The procedure appears to be ineffective in that when a contract modification is necessary, the time constraint does not adequately reflect the time required to modify the contract.

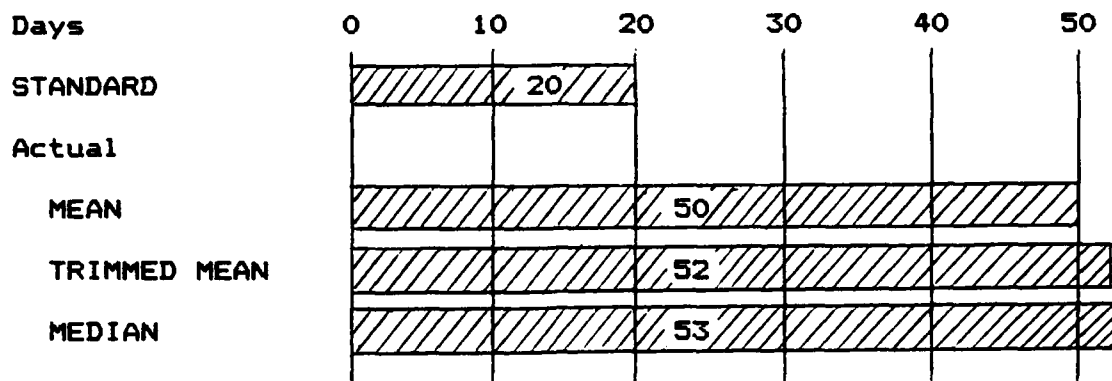


Figure 26. ALC Milestone 4 Summary

ASD. Within ASD, this milestone consists of 3 procedures: preparing the final decision, obtaining required approvals, and distributing the decision. The final decision consists of either the PNM (if there is a negotiated agreement), the unilateral decision (if no agreement), or the contract modification (if required). Aeronautical Systems Division policy letter No. 012 allows 30 days for completion of this milestone.

Our analysis revealed that the ASD data distribution was positively skewed with an average of 78 days required for this milestone. The median was calculated to be 52 days with a 15% trimmed mean of 70 days.

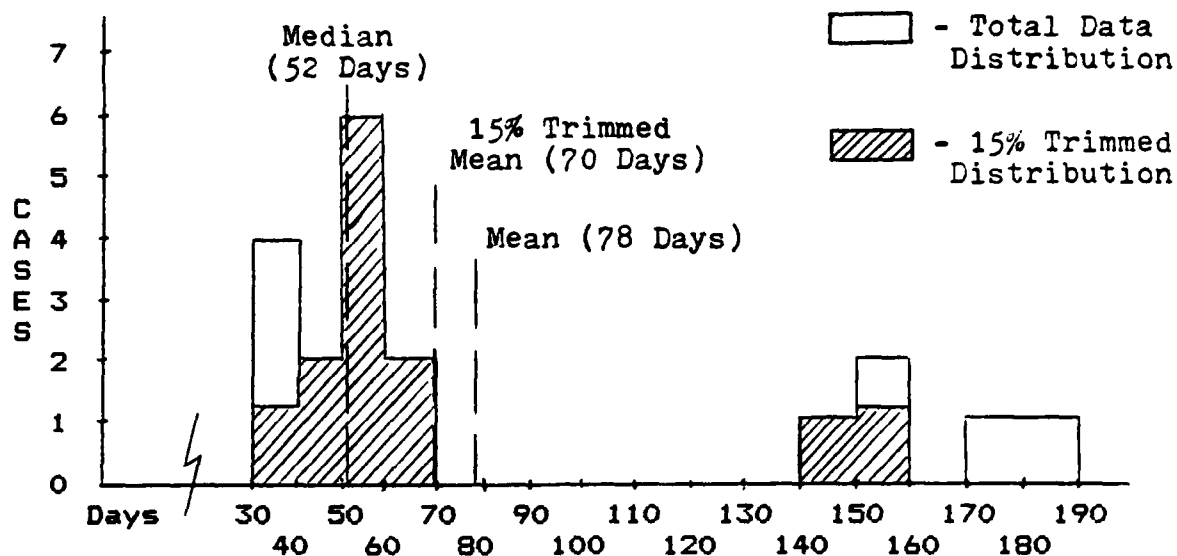


Figure 27. ASD Milestone 4 Data Distribution

Data which would have allowed further breakdown and mathematical analysis of the individual steps within this milestone was unavailable. However, an interview with an ASD expert revealed that preparing the final decision was the primary time consuming step in this milestone (17). Therefore, the procedure of preparing the final decision appears to be ineffective at meeting the time constraint for this milestone. No problems were noted with the remaining procedures in this milestone.



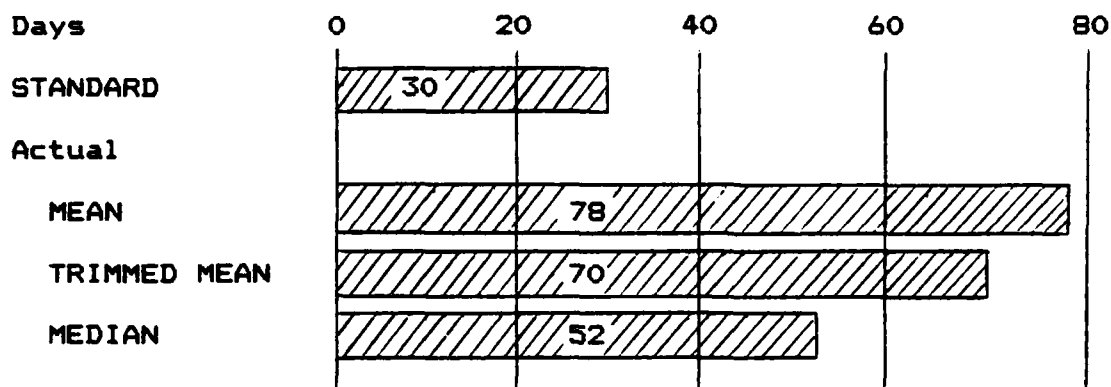


Figure 28. ASD Milestone 4 Summary

A comparison of the analyses revealed that the ALCs required an average of 50 days, whereas, ASD required an average of 78 days to complete this milestone. Additionally, the ALCs required an average of 52 days (trimmed mean) and ASD an average of 70 days (trimmed mean) to complete a typical case. Both Commands appear to be unable to meet their standard time constraints due to an insufficient amount of time being allowed for preparing the final decision. No problems were identified with any other procedures in this milestone.

### Conclusion

This chapter has compared the procedures used by each Command, identified the offices involved, and highlighted the significant bottlenecks, deficiencies, and ineffective procedures found in the resolution process. This analysis forms the basis for answering the final research question, which asks - what management tools or guidelines can be developed that may improve the government's position in

resolving defective pricing cases? Chapter V contains conclusions and recommendations which are designed to provide tools for managerial control of the resolution process.

## V. Tools For Managerial Control

### Introduction

The purpose of this chapter is to consolidate the findings of this study into meaningful conclusions and recommendations. This forms the basis for answering research question eight which asks--what tools can be developed to improve the government's position in resolving defective pricing cases in a timely manner? The chapter begins by identifying the study's three fundamental conclusions followed by related findings. The Recommendations Section uses these conclusions to formulate managerial tools to be used in the resolution process. Finally, this chapter concludes with a summary of the major findings and recommendations of this research.

### Conclusions

Our analysis revealed three fundamental conclusions. First, the 180 day time standard as established by DOD Directive 7640.2 is not adequate. Second, because of the diversity among defective pricing cases, the use of an absolute standard is unrealistic. Finally, specific problem areas exist in the post-award audit phase of the resolution process.

Conclusion: A 180 Day Time Standard Is Inadequate.

Neither Command appears to be able to satisfactorily comply

with the existing 180 day time constraint. Within the ALCs, the average time to complete a case was 377 days (33). A Headquarters AFLC study finalized in February 1984, recommended that 330 days be allowed to complete the resolution process (33). Additionally, 23 of the 30 ALC cases reviewed exceeded the 180 day time constraint. Our analysis of the ASD cases revealed that the average time to complete a case was 525 days (53). Also, 17 of the 19 ASD cases reviewed exceeded the 180 day time constraint. This tends to support the conclusion that 180 days is an insufficient amount of time to complete the resolution process.

Conclusion: An Absolute Standard Is Unrealistic.

Another problem lies in the lack of flexibility allowed by the current guidelines. The present time constraint is being interpreted as an absolute standard. The results of our research (case studies and interviews) tend to support the conclusion that each case is unique and consists of varying complexities. We therefore conclude that the time constraint should be flexible and not interpreted as an absolute standard.

Conclusion: Specific Problem Areas Exist. Our third conclusion is that, with the current procedures, problems arise in four specific areas. These areas are:

1. Reviewing and assessing the case.
2. Awaiting the contractor's initial response.
3. Evaluating the contractor's response.
4. Completing the negotiation process.

First, the time allowed to review and assess the case is not adequate. Our ALC trimmed mean analysis revealed that an average of 22 days were required to accomplish this step for a typical case. Interviews revealed that a similar situation exists within ASD. This has resulted in the analyst either sending the allegation letter prior to adequately reviewing the case or electing to review the case and ignore the time constraint.

Second, the time required to receive the contractor's initial response appears to be excessive. As far back as 1982, it was noted that some contractors were not responding in a manner consistent with the time constraints (5). Our analysis revealed that the ALCs required 55 days and ASD 83 days in a typical case to receive the initial response from the contractor. The primary reason this is occurring is that contractors have no incentive to provide a timely response (17,23:9,48). Additionally, when defective pricing occurs at the subcontractor level, more time is required since the government must deal with the subcontractor through the prime contractor. Finally, some contractors request supplemental information before issuing their formal response.

Third, the time required to evaluate the contractor's comments was more than anticipated by each Command. In evaluating the contractor's response, disagreements can arise between the primary parties involved. One part of this problem centers around the necessity to use outside offices such as the DCAA and JANO. Presently, the PMF has minimal control over the turn-around time required by these offices. Additionally, interviews with the ALC experts indicated that often an iterative loop with the contractor (as discussed on page 76) will occur during this step. This has the effect of inflating the amount of time required. Within ASD, the JANO appears to be accepting a more detailed involvement in the evaluation process. The ASD cases appeared to require either minor or extensive legal review. There appeared to be no middle ground. This resulted in the bimodal distribution displayed on page 79.

Finally, the time constraint for completing the negotiation process is inadequate. Our analysis revealed that the ALC trimmed mean was 91 days and the ASD trimmed mean 37 days to complete negotiations in a typical case. Within the ALCs, the time required for negotiations in six of the cases analyzed exceeded the total amount of time allowed for the entire resolution process (180 days). Within ASD, only 3 of the 19 cases reviewed completed negotiations within the established time constraint (20 days). Due to the varying

complexities of the negotiations process, neither Command is able to meet a rigid time constraint.

Related Findings. In addition to the three fundamental conclusions, our research identified three related findings. First, the procedures being used by each Command for resolving defective pricing cases varied in the amount of detail provided. Guidance for the ALC procedures is established by AFLCR 70-18. These procedures are more general than those used by ASD. In addition, the ALC procedures lack sufficient detail to be usable as a managerial tracking tool. The individual procedures used by the ALCs to accomplish each milestone along with a designated target time are not defined. Therefore, it is difficult to pace the resolution process through each milestone.

Second, the ALC procedures established a single OPR for the resolution process. The ASD procedures use several Offices of Primary Responsibility (PMF, PCO, JANO) with each acting as the OPR at different points in the resolution process. The ASD procedure of using several OPRs appears to create inter-office delays and thereby results in more time being required for case resolution.

Third, a delay is sometimes being incurred because the DCAA post-award audit report is not always being sent directly to the PMF. In the past, the audit report has been sent to the PCO or the SPO and was not immediately forwarded

to the PMF. This has resulted in unnecessary delays ranging from a few days to several months.

### Recommendations

The conclusions reached in this research have enabled us to make several recommendations to improve the government's ability to resolve defective pricing cases. These recommendations are: to expand the time limit for resolving defective pricing cases to 225 days, to consider the time limit as a flexible management tool, and to initiate changes in the resolution procedures currently being used by each command.

#### Recommendation: Expand The Time Standard To 225 Days.

Since our analysis revealed that the 180 day time constraint appears to be inadequate, we recommend that the time frame be expanded. Our study determined that 225 days would be more appropriate for the post-award audit phase of the resolution process. This amount of time is based upon the lowest trimmed mean (from ASD and ALC) for each milestone along with the anticipated impact of the recommended procedures found in Appendix B. A detailed breakdown of each recommended milestone begins on page 96.

#### Recommendation: Flexible Time-Line As A Management Tool.

A major problem lies in the lack of flexibility that the current time constraint allows. Since each defective pricing case is unique, we recommend that any time con-



It should be noted, however, that the use of suspense dates may create some friction between individual offices. For this reason, we strongly recommend that all parties involved in the setting of suspense dates agree on the suspense times to be used on each individual case. The suspense times recommended by this study are not absolutes and must be adjusted (upward or downward) to compensate for case complexity and workload. Finally, the issuance of more unilateral decision may be met with resistance from both the JANO and the contractors. Problems of this nature will have to be resolved at the policy-maker level before these procedures can be initiated.

#### Final Thoughts

This study has found that rigid standards are impractical as a management tool for resolving defective pricing cases and that the 180 time limit is inadequate. We recommend implementation of a flexible 225 day resolution timeline and the accompanying managerial tools developed in this study. These managerial tools will allow increased managerial control of the process which will result in more cases being resolved in a shorter period of time. The target times set forth to accomplish each procedure and milestone are only guidelines and must be adjusted depending on case complexity and workload. They are based on the expected time

Recommendation: Implement The New Guidelines. The recommendations of this study should be reviewed and considered for implementation Air Force wide, with specific emphasis on AFSC and AFLC. Because of the nature of defective pricing, it is reasonable to assume that other DOD components may also be able to benefit from this study. Therefore, we recommend that consideration also be given to distribution of this study throughout the Department of Defense. The anticipated impact resulting from the implementation of the recommendations of this study follows.

#### Managerial Impact

The average time required for all cases reviewed to complete the post-award audit phase was 525 days for ASD and 377 days for the ALCs. By implementing the recommendations of this study, we anticipate that the time required can be reduced to an average of 225 days for a typical case.

The flexibility afforded by these recommendations enable the manager to compensate for those cases requiring an excessive amount of time. Additionally, the detailed procedural breakdown should allow the manager to continue to track and pace the process even when interruptions occur. The guidelines also allow the manager to periodically evaluate how well the defective pricing case is progressing and thereby afford him the ability to anticipate potential problems.

First, we recommend 40 days be allotted to PREPARE THE FINAL DECISION. The final decision can be in the form of a unilateral decision, a contract modification, or a letter of withdrawal. This amount of time is based upon the time (trimmed mean) required by the ALCs to complete this step. As a result of both our literature review and interviews, we feel that 40 days is more than adequate to prepare the final decision. However, the data available does not clearly differentiate the reasons as to why this step is requiring such an inordinate amount of time. Therefore, individual managers may be able to reduce the time required for this step.

Second, the analyst is then allotted 8 days to OBTAIN THE REQUIRED APPROVALS. Finally, 4 days are then allotted to DISTRIBUTE THE FINAL DECISION. These times are compatible with both the actual time established by ASD and the amount of time required by the ALCs. Figure 32 depicts the recommended procedures for Milestone 4.

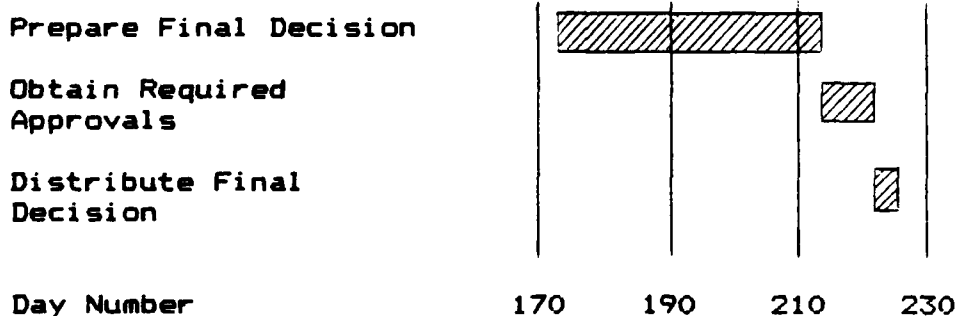


Figure 32. Recommended Milestone 4 Procedures

plexity of the case, normal government channels should be followed to notify higher levels of management. Figure 31 depicts the recommended procedures for Milestone 3.

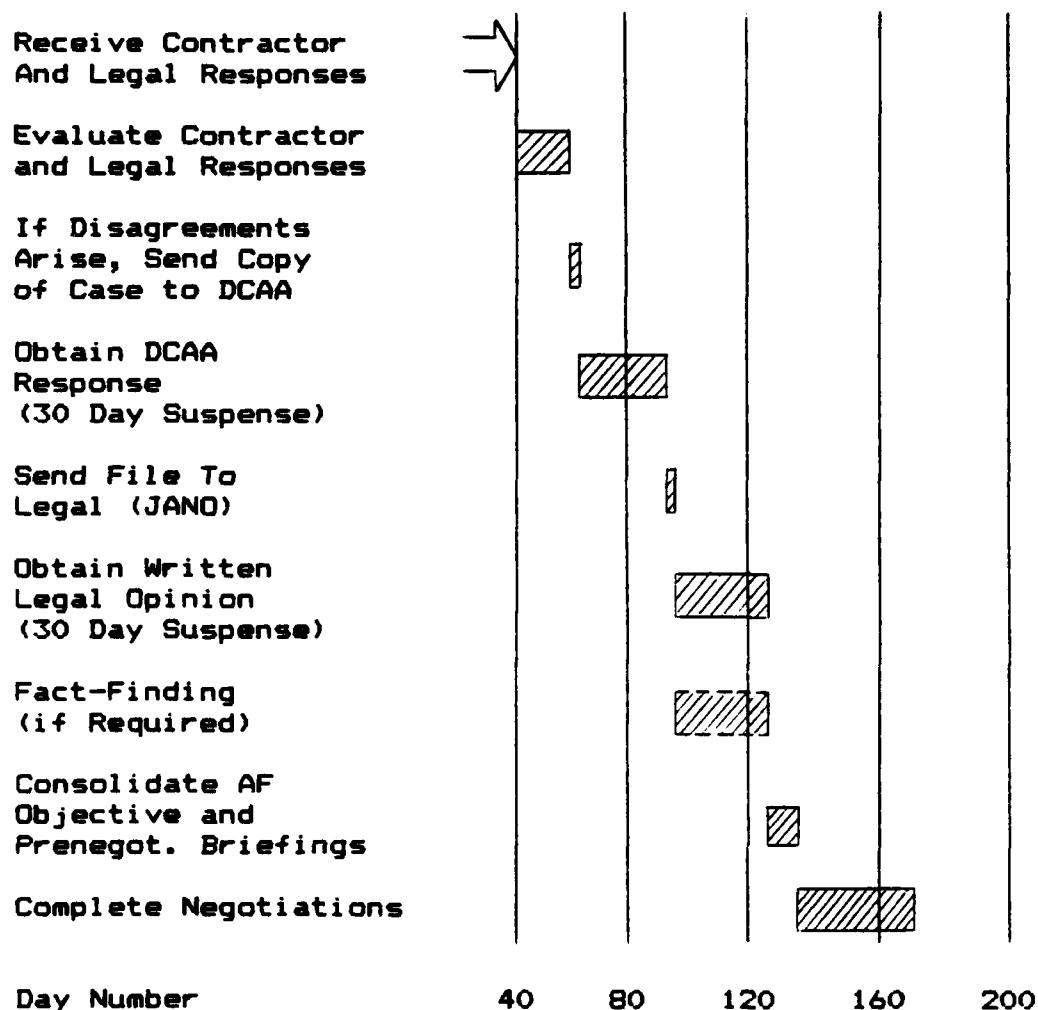


Figure 31. Recommended Milestone 3 Procedures

Milestone 4. Milestone 4 completes the resolution process. We recommend three procedures that encompass 52 days (total elapsed time 225 days). This is based upon the actual (trimmed mean) time required by the ALCs for this milestone for a typical case.

finding. Our procedure provides flexibility in that the analyst is allotted a full 30 days (while the case is in legal review) to budget his fact-finding effort.

Eighth, once the legal opinion has been obtained, the PMF is allotted 10 days to CONSOLIDATE THE AIR FORCE NEGOTIATION OBJECTIVE and to present the prenegotiation briefings. This time period is compatible with existing ASD policy.

Finally, the remaining 37 days targeted for this milestone are allotted for NEGOTIATIONS with the contractor. The current time allowed to complete negotiations has proven to be inadequate and resulted in a problem area. Our trimmed mean analysis of this ASD procedure determined that an average of 37 days should be an adequate amount of time in which to complete negotiations and alleviate the problem area.

Note: The PMF should not hesitate to recommend a unilateral decision be adopted if the negotiations are at an impasse.

Two procedures in this milestone require establishing suspense dates to increase managerial emphasis and to maintain control of the resolution process. The suspense times applied to the DCAA and JANO should be coordinated with all persons involved beforehand. This will allow the PMF to have a more realistic idea of the time the case should require. It will also allow flexibility in the resolution process when complexity and workload require additional time. If the amount of time that has passed is not warranted by the com-

Third, FORWARD THE CASE TO THE DCAA if disagreements over the initial audit findings arise between the PCO, JANO, and contractor. The PMF is allotted three days to forward the case to the DCAA.

Fourth, INITIATE A 30 DAY SUSPENSE for this reply in order to maintain managerial control of the process. As with the JANO, the suspense time should be coordinated with the DCAA. By using participative management to establish JANO and DCAA suspense times, inter-office friction should be reduced and more realistic times established. No further action can be taken until the DCAA response is obtained. If there are no disagreements, or other complications, these 30 days may be distributed where the analyst feels they would be most useful.

Fifth, once the DCAA response is obtained, the analyst is allotted three days to FORWARD THE CASE FILE TO THE JANO for legal review. Sixth, a 30 DAY SUSPENSE IS INITIATED to obtain the written legal opinion. Again, this suspense time should be coordinated with the JANO and an appropriate time agreed upon. The requirement to obtain a legal review should apply to all cases.

NOTE: It must be understood that if extensive legal review is required, this step could require as much as six additional months to complete the review.

Seventh, while the case is undergoing legal review, the analyst can conduct further FACT-FINDING if necessary. In the past, as little as 7 days were allotted for fact-

agement level should be notified. Figure 30 depicts our recommended procedures for Milestone 2.

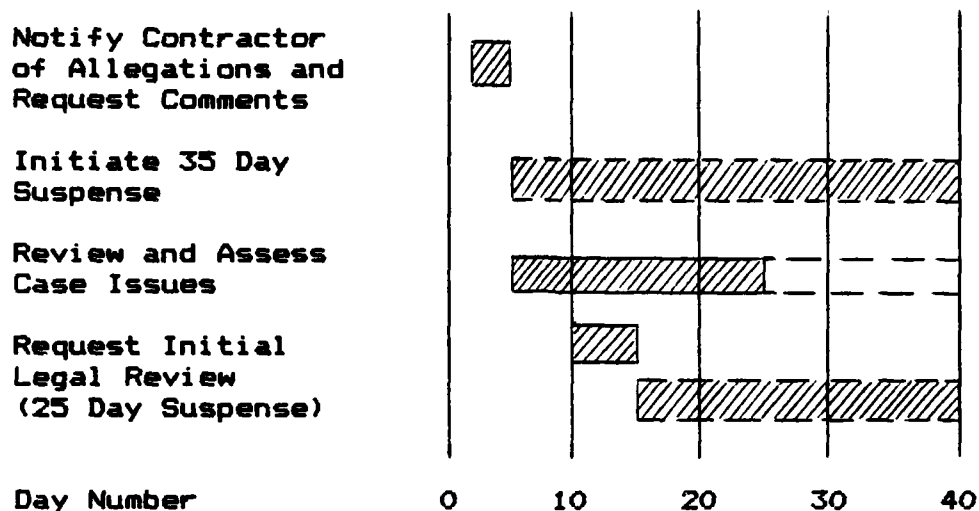


Figure 30. Recommended Milestone 2 Procedures

Milestone 3. Our proposed Milestone 3 consists of nine procedures and specifies a target of 133 days (total elapsed time 173 days) to complete the milestone. This target time is similar to the actual amount of time required by ASD (trimmed mean of 124 days) for a typical case. The milestone begins with RECEIPT OF THE INITIAL CONTRACTOR AND LEGAL RESPONSES.

Second, the time required for the EVALUATION OF THE CONTRACTOR AND LEGAL RESPONSES has been a problem in the past when as little as 7 days were allowed to accomplish this step. Our research indicated that the time currently allotted was inadequate. We recommend that 20 days be targeted to allow the analyst to review both the contractor and legal responses to the audit report.

(until the JANO reply is received) should complications arise.

The 20 day target time to review the case is based upon the results of our trimmed mean analysis of the ALC procedures. The additional days available (until the JANO response is received) provide the manager with needed flexibility. We feel that a thorough initial review will provide a firm foundation that will reduce the amount of time needed to complete milestone 3.

The fourth procedure involves REQUESTING THE INITIAL LEGAL REVIEW. Our procedures allow the analyst a 5-10 day target lead time for reviewing and assessing the case before he should request an initial legal review. We then initiate a 25 day suspense on receiving the initial JAG opinion in order to maintain managerial control of the process.

In order to minimize inter-office friction and to arrive at a realistic suspense time, this time should be coordinated with the JANO when requesting the initial legal review. We feel that 25 days is a realistic target, however this time will vary with the complexity of each case and with the workload of the JANO. If the agreed upon suspense time differs from 25 days, then the resolution milestones should be adjusted accordingly.

If a suspense time can not be agreed upon or if the agreed upon suspense time is not met, the next higher man-



4. At day 35, notify the contractor that actions may be taken at this time to initiate the process to render a unilateral decision.

It must be noted that before a decision can be made to issue a unilateral decision, the PMF must be in receipt of the JANO's response and the government must have consolidated its position. For consistency, all contractors should be advised of the 35 day suspense procedure detailed above, even though the PMF may be aware that he is unable to initiate the unilateral decision process until well after this date as a result of a delayed JANO decision.

These suspense dates are flexible target times and must be tempered with the judgement of the analyst based on the complexities of the case. For example, when subcontractors are involved more than 35 days may be required for a response.

A negative effect of issuing more unilateral decisions would be to increase the case work load in the JANO. Without additional personnel, this could slow down the legal review process.

Third, while awaiting the contractor's reply, the analyst can now perform an indepth REVIEW OF THE CASE. One major complaint in the past, as discussed on page 70, was that not enough time was allowed to review and assess the case. Our procedures alleviate this problem by allowing the analyst a 20 day target (from day 5 to day 25) to review and assess the case. However, additional days are available

comments has been identified as a major delay point, a more appropriate sequence of procedures is proposed.

First, NOTIFY THE CONTRACTOR of the defective pricing allegation and request his comments at the beginning of the process. The contractor should be informed at this time that the process to render a unilateral decision may be initiated if a reply is not received within 35 days. If the contractor anticipates problems in meeting this suspense, he should notify the PMF as early as possible. We allow the PMF 3 days to complete this step. Three days should be adequate to glean sufficient information from the audit report and then prepare a notification letter to the contractor.

Second, INITIATE A 35 DAY SUSPENSE on the contractor's reply. Based on our trimmed mean analysis, the ALCs have required 55 days and ASD 83 days to receive the contractor's response for a typical case. By exerting managerial emphasis through the use of suspense dates, we feel that this step can be better controlled and limited to 35 days. In order to maintain control of the suspense process, we recommend increasing managerial emphasis through a process similar to the following.

1. At day 25, contact the contractor and inquire as to the status of the response. If the response is not forthcoming, notify the PCO and JAND that a unilateral decision may be required.
2. At day 30, increase pressure on the contractor with a second contact.
3. At day 33, contact the JAND to determine the status of the initial legal review.

of receipt of the audit report. Figure 29 depicts our recommendations for Milestone 1.

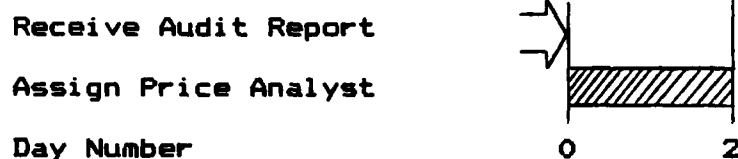


Figure 29. Recommended Milestone 1 Procedures

Milestone 2. Our recommended Milestone 2 consists of five procedures and we allow 38 days (to day 40) to complete this milestone. This number of days was derived from a procedural breakdown of this milestone. The individual times allowed for each procedure were influenced by the actual amount of time required, in conjunction with the anticipated time required using the recommended sequence of procedures. The amount of time allowed for the completion of this milestone is based on the actual trimmed mean time (39 days) currently being required by the ALCs.

Although involving the same activities encompassed by the current ASD and ALC procedures, our proposed milestone sequence, which follows, attempts to streamline the process by rearranging the procedures. The current ASD procedures direct the analyst to review and assess the case; send the audit, along with the PCO and PMF assessment, to the JANO for an initial review; and then to request the contractor's comments on the allegation. Since awaiting the contractor's

process may have been a problem in the past (9). A technique for increasing managerial emphasis is through the use of coordinated suspense dates for those steps that have proven to be specific problem areas. We recommend that suspense dates be established with the contractor, JANO, and DCAA as explained under the proposed milestones. This will allow the manager to more effectively track and control the resolution process.

Recommendation: Adopt New Milestones. A set of procedures encompassing four milestones, which occur at natural breaks in the post-award audit phase of the resolution process, have been developed as a result of this research (Appendix B). This management tool should be used by all Air Force Commands involved in defective pricing. These guidelines establish 225 days as the recommended time to complete the resolution process, but the time constraints are flexible and should be viewed in the context of a management tool or guideline designed to move the process along.

Milestone 1. We recommend that Milestone 1 consist of two procedures with an overall target completion time of 2 days. The procedures begin with the RECEIPT OF THE DCAA AUDIT REPORT. We recommend that, at a minimum, one copy of the report be sent directly to the PMF by the DCAA. Secondly, a PRICE ANALYST SHOULD BE ASSIGNED within 2 days

ated to encourage the contractor to assume a more active role in the resolution process.

We recommend that a penalty be assessed against the contractor when defective pricing is sustained. This penalty should be in the form of accrued interest on the full amount of sustained defective pricing. A time (consistent within DOD) should be established from which the interest would begin to accrue. For example, interest could begin to accrue on the day the contractor is initially notified of the DCAA defective pricing audit or as early as the date defective pricing occurred. If the contract is still open, the amount of interest on the questioned cost could be withheld from progress payments or the final payment. This should provide an incentive for the contractor to participate fully with the PMF in the resolution process.

Additionally, an alternative approach would be to withhold the total amount of alleged defective pricing from progress payments or the final payment. The government could deduct the amount of alleged defective pricing from any open contracts with the prime contractor. This should provide an incentive for the contractor to both respond and negotiate promptly in an effort to recover these funds. A major negative aspect of this approach is that the legal foundation for this recommendation is tenuous and not yet solidified.

Recommendation: Increase Managerial Emphasis. A lack of managerial emphasis in maintaining control of the resolution

straints must be flexible and viewed only as a management tool or guideline. Currently, the 180 day absolute time constraint is being construed as a grading criteria. Our guidelines are intended to provide a performance guideline for the manager and are not to be used as a grading criteria.

We anticipate that flexibility will be required predominantly in those cases requiring intricate evaluation of the contractor's response and/or extensive negotiations. It must be remembered that many factors influence the time required at each milestone, thus the PMF should be evaluated on all prudent actions taken to control the resolution process and not by how well a milestone completion date is met.

Recommendation: Establish A Single OPR. We recommend that a single Office of Primary Responsibility be established for the entire resolution process. Consolidating responsibility under a single OPR should minimize inter-office delays and expedite the resolution process. Additionally, the establishment of a single OPR will allow better centralized managerial control.

Recommendation: Provide Incentives For Contractor Response. Currently, the contractor has no incentive to provide a timely response to the initial defective pricing allegation or to assist the PMF in expediting the process. Therefore, an incentive (policy change) needs to be initi-

to complete a typical case, not every case. By implementing the recommendations of this research, the government can improve its position in the defective pricing arena.

Appendix A: Interview Questions

- A. What is your present position (job), how long have you been in this position, and what was your previous background?

- B. How are you involved with the resolution of defective pricing cases?

Can you describe the history of defective pricing?

What amounts of money and number of cases are involved?

What is a "your definition" of defective pricing?

- C. What procedures does your office/agency use to resolve defective pricing cases?

Do guidelines, written or unwritten, exist for the resolution of defective pricing cases?

What happens after the auditor initiates a defective pricing report?

What timetables (milestones) are you required to follow for resolving a defective pricing case?

Is the current timetable, as set forth by ASD PM No. 012 or AFLCR 70-18, adequate?

Note: On recurring interviews, the expert was asked if ASD PM No. 012 milestones were adequate for meeting the time constraints.

Is the six month time constraint a realistic time period for resolving defective pricing cases?

- D. How do your procedures interact with other levels of management?

At what level of command is defective pricing an item of interest?



- E. Do the procedures used by your office differ in any way from standard procedures set forth by AFSC/AFLC?

Do you have any internal memos or unwritten policies concerning the resolution process?

- F. What agencies are involved in defective pricing and what is the extent of their involvement?

What agency or office are you responsible to?

- G. Describe any bottlenecks that are occurring in the resolution process, their cause(s), and any possible solutions?

- H. Can you identify any deficiencies or gaps in the resolution process?

- I. Do you feel there are ineffective procedures being used in the process that can be identified?

- J. What suggestions or recommendations do you have for improving the resolution process?

Is the present system working?

Can you recommend another contact point for us?

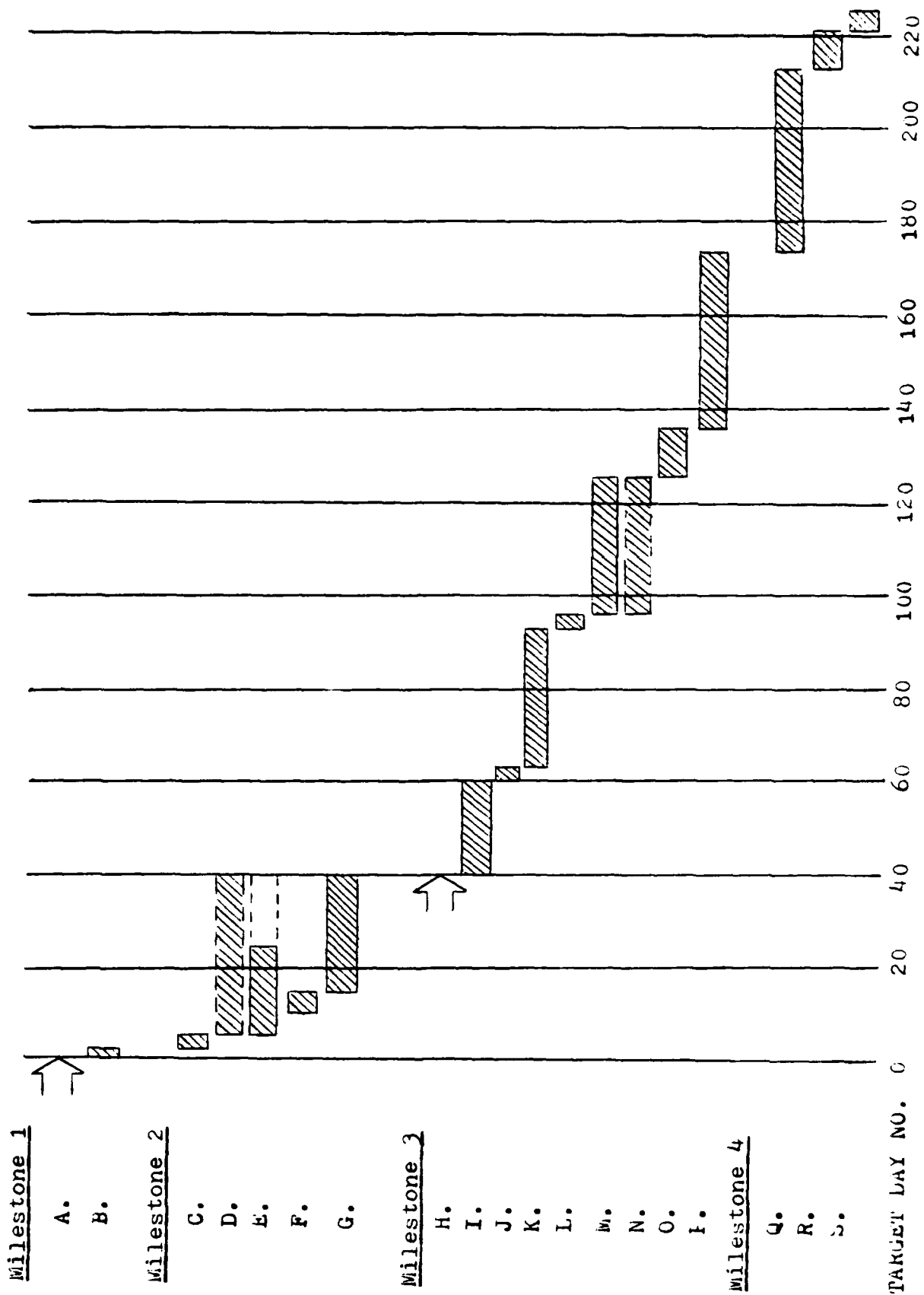
May we return later?

Appendix B: Proposed Defective Pricing Milestones

|   | Days<br>Allowed<br>(Target) | Cum.<br>Elapsed<br>Time |
|---|-----------------------------|-------------------------|
| <u>MILESTONE 1</u>  |                             |                         |
| A. Receive Audit Report   | 0                           | 0                       |
| B. Assign Price Analyst   | 2                           | 2                       |
| <u>MILESTONE 2</u>  |                             |                         |
| C. Notify Contractor of Defective Pricing Allegation and Request Comments   | 3                           | 5                       |
| D. Initiate 35 Day Suspense on Contractor's Reply   | (35)                        | (40)                    |
| E. Review and Assess Case Issues  | 20                          | 25                      |
| F. Request Initial Legal Review   | 5                           | 15                      |
| G. Obtain Initial Legal Assessment  | 25                          | 40                      |
| <u>MILESTONE 3</u>  |                             |                         |
| H. Receive Initial Contractor and Legal Responses   | 0                           | 40                      |
| I. Evaluate Contractor and Legal Response   | 20                          | 60                      |
| J. If Disagreements w/ Initial Audit Findings Arise, Send Copy of Contractor Rebuttal, PMF Evaluation, and Initial Legal Review to DCAA | 3                           | 63                      |
| K. Obtain DCAA Response (Allow 30 Day Suspense)   | 30                          | 93                      |
| L. Send File to JANO  | 3                           | 96                      |
| M. Obtain Written Legal Opinion (Allow 30 Day Suspense)   | 30                          | 126                     |
| N. Conduct Fact-Finding (If Req.)   | (30)                        | (126)                   |

|  | Days<br>Allowed<br>(Target) | Cum.<br>Elapsed<br>Time |
|--|-----------------------------|-------------------------|
| O. Consolidate A.F. Negotiation<br>Objective and Present<br>Prenegotiation Briefings | 10                          | 136                     |
| P. Complete Negotiations with<br>Contractor  | 37                          | 173                     |
| <u>MILESTONE 4</u>   |                             |                         |
| Q. Prepare Final Decision  | 40                          | 213                     |
| R. Obtain Required Approvals<br>(If Required)  | 8                           | 221                     |
| S. Distribute Final Decision   | 4                           | 225                     |

# Proposed Defective Pricing Milestones



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### Vitae

Captain Henry C. Brown was born in Sumter, South Carolina on 14 October 1948. After graduating from Edmunds High School in Sumter, he attended Clemson University. Upon graduation from Clemson in 1970, with a Bachelor of Science degree in Physics, he received his commission from OTS. He entered pilot training at Craig AFB, Alabama in 1972 and received his pilot's wings in May 1973. Captain Brown was then assigned as a B-52 Copilot to the 337th Heavy Bombardment Squadron, Dyess AFB TX. During this tour he earned a Master of Science degree in Human Relations and Management from Abilene Christian University. In 1976, he left the Air Force and assisted the state of South Carolina in devising an operational computerized billing system for payment of medicaid claims. Returning to the Air Force in January 1980, Captain Brown served as a B-52 aircraft commander with the 96th Bombardment Wing, Robins AFB GA. In June 1983, he entered the School of Systems and Logistics, Air Force Institute of Technology. Upon graduation from AFIT in September 1984, with a Master of Science degree in Systems Management, Captain Brown will be assigned as a Cost Analyst with the Headquarters Armament Division (AD) at Eglin AFB, Florida.

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# REPORT DOCUMENTATION PAGE

|   |   |  |                                |
|---|---|--|--------------------------------|
| 1. REPORT SECURITY CLASSIFICATION<br>UNCLASSIFIED   |   | 1b. RESTRICTIVE MARKINGS   |                                |
| 2. SECURITY CLASSIFICATION AUTHORITY  |   | 3. DISTRIBUTION/AVAILABILITY OF REPORT<br>Approved for Public release;<br>distribution unlimited |                                |
| 4. CLASSIFICATION/DOWNGRADING SCHEDULE  |   |  |                                |
| 5. PERFORMING ORGANIZATION REPORT NUMBER(S)<br>AFIT/GSM/LSY/84S-4   |   | 5. MONITORING ORGANIZATION REPORT NUMBER(S)  |                                |
| 6a. NAME OF PERFORMING ORGANIZATION<br>School of Systems and Logistics  | 6b. OFFICE SYMBOL<br>(If applicable)<br>AFIT/LS | 7a. NAME OF MONITORING ORGANIZATION  |                                |
| 7b. ADDRESS (City, State and ZIP Code)<br>Force Institute of Technology<br>Wright-Patterson AFB, Ohio 45433   |   | 7b. ADDRESS (City, State and ZIP Code)   |                                |
| 8a. NAME OF FUNDING/SPONSORING ORGANIZATION   | 8b. OFFICE SYMBOL<br>(If applicable)            | 9. PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER  |                                |
| 10. SOURCE OF FUNDING NOS.  |   |  |                                |
| 10. SOURCE OF FUNDING NOS.  |   | PROGRAM<br>ELEMENT NO.   | PROJECT<br>NO.                 |
| 10. SOURCE OF FUNDING NOS.  |   | TASK<br>NO.  | WORK UNIT<br>NO.               |
| 10. SOURCE OF FUNDING NOS.  |   |  |                                |
| 11. PERSONAL AUTHOR(S)<br>Henry C. Brown, M.S., Captain, USAF<br>Donald S. Ellis, M.A., Captain, USAF   |   |  |                                |
| 12. TYPE OF REPORT<br>Thesis  | 13b. TIME COVERED<br>FROM TO                    | 14. DATE OF REPORT (Yr., Mo., Day)<br>1984 September   | 15. PAGE COUNT<br>136          |
| 16. SUPPLEMENTARY NOTATION  |   |  |                                |
| Approved for public release: LAW AFR 190-17.<br>L. E. WOLVER<br>Dean for Research and Professional Development<br>Wright-Patterson AFB OH 45433   |   |  |                                |
| 17. COSATI CODES  |   | 18. SUBJECT TERMS (Continue on reverse if necessary and identify by block number)                |                                |
| 17. COSATI CODES  | GROUP   | SUB. GR.   |                                |
|   | 01  |  |                                |
|   |   | Audit, Defective Pricing, Overages, Public Law 87-653,<br>Resolution, Truth-In-Negotiations      |                                |
| 19. ABSTRACT (Continue on reverse if necessary and identify by block number)<br>1a: DEFECTIVE PRICING: MANAGEMENT<br>TOOLS FOR CASE RESOLUTION<br><br>20. Thesis Advisor: Theodore J. Novak, Lt Col, USAF |   |  |                                |
| 21. DISTRIBUTION/AVAILABILITY OF ABSTRACT<br>UNCLASSIFIED/UNLIMITED <input checked="" type="checkbox"/> SAME AS RPT. <input type="checkbox"/> DTIC USERS <input type="checkbox"/>                         |   | 21. ABSTRACT SECURITY CLASSIFICATION<br>UNCLASSIFIED   |                                |
| 22a. NAME OF RESPONSIBLE INDIVIDUAL<br>Theodore J. Novak, Lt Col, USAF  |   | 22b. TELEPHONE NUMBER<br>(Include Area Code)<br>513-255-6280                                     | 22c. OFFICE SYMBOL<br>AFIT/LSQ |

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE

The 1962 Truth in Negotiations Act was a legislative attempt to put the government and the contractor on an equal negotiating basis. It requires the contractor to provide accurate, current, and complete information to the government negotiator during negotiations. Defective pricing occurs when the contractor violates this tenant. The time frame and milestone sequence currently being followed in resolving these cases has drawn considerable top level interest. The six month time criteria, established by DODD 7640.2, is being exceeded in a majority of the cases. This study was designed to accomplish three goals: to analyze the current procedures being used in the Systems and Logistics Commands during the post-award audit phase of the resolution process; to identify deficiencies, bottlenecks, and ineffective procedures which are present; and to develop management tools that will assist the government in resolving these cases in a timely and effective manner. A survey of regulations, directives, and policy letters was conducted in conjunction with interviews with field experts and key personnel in the defective pricing arena within AFSC and AFLC. A comprehensive case study analysis revealed that the current procedural sequence and time frames being followed have several inherent weaknesses and problems. A logical and effective set of milestone guidelines, to be used as management tools, were developed along with other recommendations designed to strengthen the government's position in resolving defective pricing cases.

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